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Do Auditors Change their Behavior after Litigation?

- Evidence from Audit Fee and Audit Quality -

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2016년 2월

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경영학과 회계학 전공

하 원 석

Do Auditors Change their Behavior after Litigation?

- Evidence from Audit Fee and Audit Quality -

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Abstract

This study examines whether auditors change their behavior in terms of audit quality and audit fees after litigation. The findings in this paper are summarized as follows. First, auditors increase audit efforts to improve audit quality after litigation against them, as suggested by Lennox and Li(2014). Second, auditors charge higher audit fees for both continuing and new clients after litigation against them. These results support the hypothesis that auditors adjust audit pricing mechanism to reflect increased audit efforts and/or expected legal liability. In addition, this paper investigates how litigation against auditors affects the way investors evaluate audit quality in the capital market. It is found that earnings response coefficients decrease with auditors' exposure to litigation. In particular, the decreases in earnings response coefficients are more pronounced for firms with higher agency costs, supporting the role of auditors in reducing agency costs.

Keywords: litigation; audit quality; audit fee; earnings response coefficients; agency costs.

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I. Introduction

Many prior studies have focused on the ex-ante determinants of litigation against auditors: discretionary accruals, client size, auditors' economic dependence on clients, and auditor tenure (Lys and Watts 1994; Heninger 2001; Stice 1991). In a similar spirit, some literature suggested that audit firms manage ex ante litigation risk by adjusting their behavior in a more conservative way. For example, auditors improve audit quality and receive higher audit fees in a stricter legal regime (Venkataraman et al. 2008). Auditors protect themselves from litigation by issuing going concern reports to financially distressed firms (Kaplan and Williams 2013). These studies collectively suggested that auditors adjust their behavior in order to mitigate potential litigation risk.

On the other hand, the consequences of litigation against auditors are rarely examined by prior research. Lennox and Li (2014) reported that the probability of accounting misstatements decreases following lawsuits against auditors, supporting the hypothesis that auditors improve financial reporting quality after they experienced litigation. With regard to auditor behavior in terms of audit fees, Fan et al. (2015, Working Paper) demonstrated that litigation-involved offices increase audit fees, while non-litigation offices of litigation audit firms decrease audit fees after litigation. In particular, they attributed the decreases in audit fees for non-litigation offices of litigation audit firms to reputational damage.

However, these findings of Fan et al. (2015, Working Paper) are inconsistent with our intuition for the following reasons. First, reputational damage is more likely to be concentrated in litigation-involved offices rather than in non-litigation offices of litigation audit firms. Thus, litigation-involved offices are likely to be under

greater pressure of fee discounting, in contrast with the main findings of Fan et al. (2015, Working Paper). Secondly, both litigation and non-litigation offices of litigation audit firms have incentives to increase audit fees to cover increased audit production costs, as implied by Lennox and Li (2014).

The objective of this paper is to provide more comprehensive and convincing evidence on auditors' behavioral change after litigation. In terms of audit quality, I revisit the test settings employed by Lennox and Li (2014), with a different measure of audit quality. The results of this paper reveal that auditors indeed increase audit efforts to improve audit quality, supporting the hypothesis that auditors reassess their audit quality after litigation, and increase audit efforts in order to avoid potential legal consequences.

More importantly, I investigate whether litigation against auditors affects audit fees. Extending Ghosh and Lustgarten (2006), I put focus on initial audit engagements, because auditors' two conflicting incentives regarding adjustments of audit fees stand out obviously in the first years of audits. As Stice (1991) suggested, auditors encounter a higher probability of being sued in the early years of audit engagements, giving new auditors stronger incentives to enhance audit efforts to protect themselves from potential legal liability. Simultaneously and contrastively, auditors, after litigation, become subject to greater pressure of offering fee discounts to new clients, because such litigation makes them suffer from reputational damage (Palmrose 1988) and/or threats of dismissal by clients (Skinner and Srinivasan 2012). This paper tests these two contrasting expectations, and finds that auditors increase audit fees as they have more frequently experienced litigation. Specifically, auditors decrease the magnitude of initial fee discounting following litigation against them. These results support the hypothesis that auditors increase audit fees to cover

increased audit production costs and expected legal liability costs. Inconsistent with Fan et al. (2015, Working Paper), this paper shows that the effects of audit firms' concern over litigation risk outweigh those of reputational damage.

Turning the focus to investors, I also examine how investors interpret litigation against auditors in evaluating audit quality. Since audit quality is unobservable (Watkins et al. 2004), the evidence of auditors improving audit quality after litigation does not necessarily imply that investors perceive the audit quality as improved due to auditors' corrective behavior after litigation. Motivated by such reasoning as above, Moreland (1995) found that regulatory sanction against auditors reduces ERCs, but unfortunately failed to find the evidence that litigation against auditors affects ERCs.

In an attempt to supplement the prior study, I pay attention to litigation against auditors rather than regulatory sanction. I directly examine the effects of litigation against auditors on ERCs, employing a market-based approach based on Ghosh and Moon (2005). The results of this paper reveal that investors reduce a value premium for reported earnings when those earnings are audited by auditors against whom litigation is filed. In other words, investors interpret litigation against auditors as a signal for the impairment of audit quality. Besides, the decreases in ERCs are observed only in firms with higher agency costs, supporting implicitly the well-documented argument that auditing is part of monitoring and control system to reduce agency costs, contributing to firm value (Jensen and Meckling 1976; Francis and Wilson 1988; Watts and Zimmerman 1983).

The findings of this paper collectively contribute to existing accounting literature in several ways. First of all, this paper provides evidence that audit quality is improved after litigation against auditors, supporting (Lennox and Li 2014). Also,

this paper examines the effect of such litigation on audit fees, with an angle different from that of Fan et al. (2015, Working Paper). While Fan et al. (2015, Working Paper) examined separately litigation-involved offices and non-litigation offices of litigation audit firms with a dichotomous litigation variable, this paper looks into litigation audit firms with both dichotomous and continuous litigation variables. As a result, this paper explicitly shows that auditors' behavior varies depending on the intensity of auditors' exposure to litigation. Secondly, to my knowledge, this paper is the first to examine the effect of litigation on auditors' low balling behavior. I show that auditors increase audit fees to reflect increased audit efforts and potential legal liability costs, even though they are under higher pressure of offering a fee discount to new clients. Lastly, this paper highlights the role of auditors in providing informative and credible information on reported earnings by reducing agency costs.

The rest of this paper consists of the following sections. Section II contains prior literature review and hypothesis development. Section III provides explanation on sample selection procedures and empirical models used in this paper. Section IV shows the results of empirical tests, and Section V covers several sensitivity tests. Lastly, concluding remarks are presented in Section VI.

II. Prior Literature and Hypothesis Development

2.1. Litigation and Audit Quality

Prior literature has shown that auditors manage a priori litigation risk by performing more conservative audits. For example, auditors issue going concern reports to financially distressed clients, decreasing the likelihood of lawsuits filed against them (Kaplan and Williams 2013). Discretionary accruals are less for pre-

IPO firms than for post-IPO firms, consistent with auditors auditing conservatively in the exposure to higher litigation risk (Venkataraman et al. 2008).[1] Since the probability of auditors being sued increases with reported discretionary accruals (Lys and Watts 1994; Heninger 2001), it can be inferred that the management of audit quality is an effective way to reduce litigation risk. If auditors fail to provide audit service of higher quality, then the auditors are likely to be sued from relevant parties (Palmrose and Scholz 2004; Hennes et al. 2008). These studies collectively suggested that auditors have incentives to maintain audit quality in an appropriate level in order to prevent unfavorable legal consequences.

However, not much prior literature has investigated so far how auditors change, or correct, their behavior in terms of audit quality after experiencing litigation. In fact, auditors' behavioral change after litigation is different from the focus of prior literature that has examined mainly ex ante determinants of litigation (Palmrose 1988; Lys and Watts 1994; Bonner et al. 1998; Heninger 2001; Venkataraman et al. 2008; Kaplan and Williams 2013). In this paper, I discuss the effects of litigation against auditors on auditors' subsequent behavior. Specifically, I suggest that litigation against an auditor can influence the auditor's behavior mainly via two channels: re-assessment of audit quality and learning effects.

Following the assumption in Lennox and Li (2014), I posit that the auditor is a rational agent that, imperfectly informed, interprets new information using Bayes' rule. Thus, the auditor updates prior assessment of its own audit quality, after obtaining new information from litigation it experienced (Lennox and Li 2014). Specifically, the auditor re-assesses its audit quality downward, and recognizes the

[1] Pre-IPO firms go public under the Securities Act of 1933, while post-IPO firms file under the Securities Exchange Act of 1934. Venkataraman et al. (2008) argued that firms are exposed to higher litigation risk under the 1933 Act than the 1934 Act.

gap between its re-assessed audit quality and desirable audit quality. This assessment process eventually affects planned levels of audit investment (Barron et al. 2001).

Simultaneously, the auditor also possibly learns from past experience (Waller and Felix 1984). Beck and Wu (2006) theoretically documented learning effects, in which the auditor's learning on the job affects audit quality via the accumulation of client-specific knowledge. Learning effects can also be applied to litigation. In this case, the auditor re-evaluates audit procedures and obtains knowledge on in what aspects it fails to provide audit service of proper quality. Then, such knowledge will be shared with the auditor's CPA members, giving opportunities for the members to learn. In particular, Blouin et al. (2007) empirically showed that after the collapse of Arthur Andersen, audit teams that had previously belonged to Arthur Andersen improved audit quality for firms with higher litigation risk, implying the possibility that auditors learn from past experience of audit failure.

Thus, I hypothesized that auditors improve audit quality after experiencing litigation. Since auditors are concerned about potential litigation risk, the downward re-assessment of their own audit quality will provoke their potential legal liability, affecting auditor incentives to change their behavior in a more conservative way (Francis and Krishnan 2002; Lennox and Li 2014). In addition, learning effects from past audit failures will lead auditors to increase audit investments, so that they can reduce the potential litigation costs related with litigation (Simunic 1980).

To test whether or not the intensity of auditors' experience of litigation as well as the experience itself can affect audit quality, I suggest the following hypotheses.

H1a: Auditors improve audit quality after litigation against them.

H1b: Auditors more improve audit quality as they experienced more litigation against them.

2.2. Litigation and Audit Fees

According to Simunic (1980), audit fees are determined by three components: audit production costs, expected legal liability costs, and normal profit. Lennox and Li (2014) have reported that auditors increase audit efforts to improve audit quality, and increased audit efforts result in higher audit production costs (Simunic and Stein 1996; Bell et al. 2001). At the same time, auditors charge a risk premium to cover expected legal liability costs (Pratt and Stice 1994; Gramling et al. 1998). In particular, litigation channel effects are highlighted in a sense that audit fees are set higher for public firms to reflect increased audit effort and/or pure litigation premium (Badertscher et al. 2014). These studies, overall, suggested that after litigation against auditors, audit fees rise due to increased costs of audit production or/and potential litigation losses.

On the other hand, litigation against auditors results in auditor reputation damage. Palmrose (1988) suggested that litigation against auditors is regarded as a negative signal for audit quality, leading to the impairment of auditor reputation. Firth (1990) showed that the government inspector's criticism adversely affects auditor reputation, subsequently weakening auditors' client base. With respect to audit fees, Beatty (1989) and Francis et al. (2005) documented that auditor reputation is one of the determinants of audit fees. In line with the importance of auditor reputation as a determinant of audit fees, Davis and Simon (1992) reported that new clients of auditors subject to SEC disciplinary actions receive greater fee discounts. Similarly, Fan et al. (2015, Working Paper) demonstrated that audit fees are lower for non-litigation offices of litigation audit firms than for offices of non-litigation audit firms, attributing these results to auditors' reputation damage. Therefore, it is possible that auditors face the difficulty in charging higher audit fees after they recently

experienced litigation.

Therefore, it is unclear a priori in which directions auditors adjust audit fees after litigation. The most related prior study, Fan et al. (2015, Working Paper), also documented mixed evidence on the effect of litigation on audit fees. According to them, only litigation offices of litigation audit firms increase audit fees to reflect increased audit efforts and/or newly assessed litigation risk, while non-litigation offices of litigation audit firms do adversely. However, as discussed earlier, auditors in both litigation and non-litigation offices are known to improve financial reporting quality after litigation (Lennox and Li 2014). Besides, considering knowledge sharing within accounting firms (Vera-Mun~ oz et al. 2006) and accounting firms' national positive network synergies (Reichelt and Wang 2010), it is too restrictive to argue that auditors' increased concern about audit quality applies only in litigation offices. Thus, further research is required to shed light on such unresolved issues in auditors' behavioral change in audit fees after litigation. To address these issues, I put focus particularly on two aspects in this paper: 1) more elaborated research design and 2) choice of audit firm-level analysis. The detailed explanation on research design is provided in Section III. The choice of audit firm-level analysis is motivated by the attempt to provide audit firm-wide evidence and pursue more generalized findings.

Since we cannot predict a priori auditors' behavior in terms of audit fees after litigation in a single direction, the hypothesis H2a is stated in the null form.

H2a: Auditors do not adjust audit fees after experiencing litigation against them.

As an extension of H2a, it is also worth examining how auditors adjust audit fees after litigation particularly in their initial audit engagements. Some prior research

provides good reasons to look into the first years of audits with regard to litigation risk. Stice (1991) found that auditors face higher litigation risk from new clients. As the tenure of the auditor-client relationship becomes longer, auditors enhance efficiency in audit procedures due to learning (Pierre and Anderson 1984), which allows auditors to accumulate client-specific knowledge and improve audit quality (Beck and Wu 2006). These findings imply that auditors encounter increased audit risk in their initial engagements due to unfamiliarity with clients. As far as auditors are concerned about potential litigation risk, amplified even stronger after litigation, auditors would have incentives to increase audit fees to cover increased audit production costs and/or potential legal liability for new clients. In a similar sense, Ghosh and Pawlewics (2009) reported that large auditors' initial fee discounting behavior disappeared in the post-SOX period, which implies that auditors adjust audit fees for new clients in the strict legal regime.

With regard to audit fees for new clients, however, another possibility should be considered together. In general, auditors are known to be engaged in low balling behavior, a phenomenon in which auditors discount audit fees for new clients (Simon and Francis 1988; Gregory and Collier 1996; Ghosh and Lustgarten 2006). In particular, Ghosh and Lustgarten (2006) pointed out that auditors' fee cutting practice in initial engagements is a competitive response necessary for auditors' survival. Under the competitive audit market, auditors' bargaining power over clients would be undermined after litigation, because of litigation's negative influence on auditor reputation. Skinner and Srinivasan (2012) showed that auditors become exposed to threats of dismissal by clients after audit failure. Therefore, I suggest the possibility that auditors' low balling behavior becomes far more pronounced after litigation if such behavior helps to maintain auditors' client base and attract new

clients. Also, clients are less likely to pay higher audit fees to auditors whose reputation is damaged due to litigation. In other words, they are willing to require auditors to offer an initial fee discount.

Thus, it is not clear a priori how litigation against auditors affects auditors' fee discounting in new audit engagements. The hypothesis H2b is stated in the null form.

H2b: Auditors do not adjust audit fees in initial audit engagements after experiencing litigation against them.

2.3. Litigation and Investors' Perception of Audit Quality

Recent research has shown that earnings of higher quality are capitalized to higher price, resulting in higher ERCs (Imhoff and Lobo 1992; Balsam et al. 2003; Schipper and Vincent 2003; Ghosh and Moon 2005; Dechow et al. 2010; Teoh and Wong 1993). ERC is estimated as the coefficient on earnings in a regression of returns on earnings. Conceptually, it presents the extent to which reported earnings are informative in the pricing of stocks. Thus, it depends on investors' perceived credibility of reported earnings.

In particular, some prior studies pointed out auditor-related factors as the determinants of perceived earnings quality: Teoh and Wong (1993) found that ERCs are higher for firms with larger audit firms. Balsam et al. (2003) reported that auditor industry specialty contributes to higher audit quality, increasing higher ERCs. Ghosh and Moon (2005) showed that auditor tenure positively influences earnings quality, leading to higher ERCs. Collectively, these studies suggested that investors' perception of audit quality does matter in the valuation of firms.

Given the hypothesized changes in auditors' behavior after litigation in H1 and H2, it is necessary to further examine how investors infer audit quality from auditors'

past litigation. Since audit quality is unobservable in nature (Watkins et al. 2004), evidence of auditors improving audit quality after litigation does not necessarily mean that investors perceive audit quality as improved. Similarly, a few prior studies, using experimental methods, have shown that auditor independence is not observable in a timely manner, and auditor independence-in-appearance can deviate from independence-in-fact (Dopuch et al. 2003; Schuetze 1994). Considering the definition of audit quality suggested by DeAngelo (1981)[2], it is worth looking into *investors' perception* of audit quality.

Motivated by such reasoning as above, Moreland (1995) found that ERCs decrease following SEC enforcement action against auditors, but unfortunately failed to find significant effects of litigation. Specifically, he/she attributed the lack of evidence that litigation affects ERCs to imprecise and subjective measures of litigation. Thus, in this paper, I construct a more refined measure capturing auditors' exposure to litigation.

Following Ghosh and Moon (2005), I employ a market-based approach, in which investors are the principal users of financial statements. Under this approach, usefulness of financial statements relies on value relevance and reliability. Thus, as discussed above, earnings of higher quality appear with higher earnings response coefficients. The main focus of analysis lies in whether or not auditor litigation affects the extent to which investors reflect reported earnings into stock returns.

If investors fully understand the implications of litigation against auditors, they would expect auditors to adjust their behavior to enhance audit quality and would

[2] Audit quality is defined as the joint probability that auditors can detect financial statement errors and report them (DeAngelo 1981). According to this definition, audit quality is the function of auditor independence, auditors' willingness to report timely such detected errors. Since auditor independence-in-fact is invisible, it is inevitable to examine perceived audit quality based on independence-in-appearance.

pay a higher premium for reported earnings. However, investors' response to reported earnings would decline if investors functionally interpret the existence of litigation against auditors as a signal for the impairment of audit quality. Therefore, the hypothesis H3a is given in the null form.

H3a: Litigation against auditors do not affect earnings-returns association.

As an extension of H3a, I further investigate the channel through which litigation against auditors affects perceived audit quality. Auditing of higher quality is part of monitoring and control system reducing agency costs, contributing to the firm value (Jensen and Meckling 1976; Watts and Zimmerman 1983; Francis and Wilson 1988). In other words, the value of auditing service lies in the auditor's role of reducing agency costs borne by investors. Investors value earnings reported by firms with lower agency costs, because they regard those earnings as more credible and informative. (Fan and Wong 2002; Warfield et al. 1995). Therefore, if investors interpreted litigation against auditors as a signal that auditors may not fully perform their monitoring role, auditor litigation affects ERCs more negatively for firms bearing higher agency costs than for firms bearing lower agency costs. The hypothesis H3b is stated in the alternative form.

H3b: Litigation against auditors more negatively affects earnings-returns association in firms with higher agency costs than in firms with lower agency costs.

III. Research Design

3.1. Measurement and Variables

Dependent Variables

First, accrual quality is measured as the standard deviation of the residuals from the regression of the modified Dechow and Dichev (2002) model, presented in equation (1) (McNichols 2002). Consistent with Francis et al. (2005), equation (1) is cross-sectionally estimated for each of Fama and French (1997)'s 48 industry groups and for each year. In an attempt to minimize the estimation errors, a year-industry group with less than 20 firms is excluded from the sample. Finally, the estimation of the equation (1) yields year- and firm- specific residuals, which are used to calculate the measure of accrual quality. Specifically, AQ, accrual quality, is calculated as the standard deviation of year- and firm-specific residuals over years t-4 through t. Larger values of AQ indicate firms whose accruals poorly map into operating cash flows, implying lower quality of accruals.

$$TCA_{it} = \phi_{0,i} + \phi_{1,i}CFO_{it-1} + \phi_{2,i}CFO_{it} + \phi_{3,i}CFO_{it+1} + \phi_{4,i}\Delta REV_{it} + \phi_{5,i}PPE_{it} + \nu_{it} \quad (1)$$

, where TCA is firm i's total current accruals in year t; CFO is firm i's cash flow from operations in year t; ΔREV is firm i's change in revenues; and PPE is firm i's gross value of property, plant, and equipment in year t.

Second, I log-transform audit fees into LNAUDFEE since audit fees are positively skewed. As a result, Panel B of Table 2 shows that mean value of LNAUDFEE is 13.28, close to the median value of 13.44.

Third, cumulative market-adjusted returns are used as a dependent variable and denoted as CAR in equation (2). Following Ghosh and Moon (2005), cumulative

market-adjusted returns are calculated as cumulative raw returns less cumulative value-weighted CRSP market return. Cumulative returns are measured as buy-and-holding returns for 12-month period ending 3 months after the fiscal year-end, as shown in equation (2).

$$CAR_{it} = \prod_{m=-8}^{3} R_{itm} - \prod_{m=-8}^{3} MARKET_{tm} \quad (2)$$

, where R_{itm} is the monthly buy-and-hold raw returns for firm i in month m; $MARKET_{tm}$ is the monthly value-weighted CRSP market return in month m; and m is the month relative to the year-end month 0 of the fiscal year t.

Independent Variables

To measure an auditor's experience of litigation, I construct three different versions of litigation: LIT_N, LIT_R, and LIT_I. LIT_N is defined as the number of lawsuits that firm i's auditor experienced during the previous three years before firm i is audited in year t. LIT_R is the ratio of LIT_N to the number of total audits that firm i's audit firm performed during the current year t. Lastly, LIT_I is an indicator variable that has the value of one if firm i's auditor experienced at least one lawsuit during the previous three years.

The rationale behind the use of LIT_N and LIT_R is attributable to the possibility that BIG4 auditors may be exposed to litigation in every year of the sample period. Thus, the use of LIT_I makes it difficult to fully investigate the variation in effects of litigation among BIG4 auditors. By investigating the effects of LIT_N and LIT_R on the dependent variables, I expect to see the effects of the intensity of an auditor's experience of litigation.

3.2. Sample Selection

Litigation against Auditors

In this study, I focus on legal cases in which an auditor is filed as a defendant among auditor-related lawsuits initiated from Jan 2001 to Dec 2014. Being sued as a defendant makes an auditor legally accountable for its malpractice conducted in audit services. Thus, when an auditor is sued as a defendant in legal cases, it is likely to perceive higher level of legal liability resulting from such cases and to have greater incentives to correct their behavior in various ways. Additionally, following Lennox and Li (2014), I excluded the lawsuit cases unrelated to financial reporting matters from the sample. As a result, I secured 1,388 lawsuit cases against auditors that were filed from Jan 2001 to Dec 2014.

To make sure that lawsuits in the sample were attributable to audit services provided by auditors, I double-checked each lawsuit case by manually identifying auditee names. Since I secured the lawsuit sample with a simple criterion that lawsuit cases be filed against auditors, auditee names are not easily identified in those cases. Above all, auditee names do not necessarily show up in legal dockets. For the identification of auditee names involved in lawsuit cases, I hand-collected the auditee names from various sources including SEC filings, Securities Class Action Clearinghouse of Stanford University, LexisNexis Academic, and a web search via Google. Among 1,388 lawsuit cases, I removed 99 cases that are related to non-audit services, and 296 cases in which I was not able to identify the auditee names. As a result, 993 lawsuits are included in the final sample.

[Insert Table 1 about here]

Panel B of Table 1 shows that the 4 largest audit firms (BIG4) are involved in 71% of the total lawsuits, while 121 audit firms are involved in only 12% of them. Given the simple comparison of the number of lawsuits against auditors, BIG4 audit firms seemingly face more litigation. However, if the number of audits delivered by audit firms is considered, it is difficult to simply conclude that BIG4 experiences more litigation. Panel C of Table 1 reports frequency of litigation, which is calculated as the number of lawsuits against an audit firm divided by the number of audits delivered by the audit firm. BIG4 audit firms' mean (median) frequency of litigation is 0.0055 (0.0060), while non-BIG4 audit firms' mean (median) value is 0.0481 (0.0105), indicating that non-BIG4 audit firms more frequently experience litigation, a result consistent with Palmrose (1988).

Sample Selection

A basic unit of analysis is a firm-year observation obtained from COMPUSTAT Fundamentals Annual database. I excluded any observation with its data date earlier than Dec 31, 2003 or later than Dec 31, 2014.[3] In an attempt to mitigate concern that an auditee's involvement in litigation may confound the effects of litigation against an auditor, I also removed firms that are directly involved in lawsuit cases. Lastly, I restricted the sample to firms with auditors from the United States. As a result, I secured 50,191 firm-year observations in the initial common sample. Based on the initial common sample, additional sample treatment process slightly differs depending on model-specific variables used in my analyses. Detailed description on

[3] The sample period starts from Jan 2004, because an audit firm' experience of litigation is measured as the number of lawsuits in which the audit firm gets involved during the previous three years before an audit service is delivered. Be noted that lawsuit cases are collected from Jan 2001 to Dec 2014.

sample treatments is as follows.

In the analysis of audit quality, I restricted the sample to firms with historical data sufficient to generate variables on a rolling basis. For example, in the analysis of audit quality, operating cash flow volatility (CFO_VOL), sales volatility (SALE_VOL), operating cycle (OP_CYCLE), and loss realization frequency (LOSS_FREQ) are calculated using data over the past 10 years. Thus, I required firms to have at least 5 years of data in the recent past period. In addition, COMPUSTAT segment data are required to generate variables reflecting a firm's operational and geographical segments. Since not all firms report information on their segments, any firm-year observation with incomplete data on its segments is removed from the initial common sample, which is also applied to the analysis of audit fees in the same manner.

In the analysis of earnings response coefficients, monthly market and individual stock returns are required to generate cumulative returns and firm-specific rolling-basis betas. Thus, firm-year observations are additionally required to have stock return data in CRSP Monthly Stock File database. For the calculation of cumulative returns and rolling betas, I also restricted the sample to firms with stock return data of at least 60 months in the recent past period.

Finally, after all treatments on the initial common sample, I secured 17,046 observations for the analysis of audit quality, 35,335 observations for the analysis of audit fees, and 24,889 observations for the analysis of earnings response coefficients. In particular, in the cases where variables extracted from COMPUSTAT segment data are required, the sample is restricted to 8,967 observations for the analysis of audit quality (See Panel A in Table 2), and to 14,997 observations for the analysis of audit fees (See Panel B in Table 2).

3.3. Model Specification

The objective of the paper is to examine how auditors change their behavior in terms of audit quality and audit fee after litigation, and to show how investors interpret such litigation against auditors in the evaluation of audit quality. I suggest three different model specifications to address my research questions, and those models are described in the following subsections.

Audit Quality and Litigation

Dechow and Dichev (2002) suggest several observable firm characteristics in the firm's business environment that are significantly related to accrual quality: total assets, operating cycle, cash flow volatility, sale volatility, and frequency of loss realizations. Following Francis et al. (2005), I include these firm characteristics as control variables in the base model.

In addition, I augment the base model with additional control variables following prior studies. First, I control for auditor office-specific characteristics such as OFFICE_SIZE, INFLUENCE, RISK_PF. As suggested by Francis and Yu (2009) and Choi et al. (2010), audit quality is higher in larger big4 offices. Thus, I control for OFFICE_SIZE, defined as the natural log of the total amount of audit fees charged to all audit clients within an auditor office. Following Francis and Yu (2009), I include INFLUENCE to control for the possibility that an auditor office's economic dependence on a client may impair auditor independence. Lastly, according to Francis and Michas (2013), I also control for RISK_PF, the average level of the client portfolio risk within an auditor office. Assets, leverage, and return on assets of clients within each office-year are used to construct RISK_PF, which takes higher value for a riskier portfolio.

As suggested by Francis and Michas (2013), various firm-level variables are also included in the model to control for the firm characteristics that may affect accrual quality: total accruals in year t-1 (TACC_LAG1), one-year growth in a firm's sale from year t-1 to year t (SALE_GROWTH), one-year growth in a firm's net property, plant, and equipment from year t-1 t year t (PPE_GROWTH), cash flow from operation in year t (CFO), leverage (LEV), market-to-book ratio (MB), financing via the issuance of shares (EQUITY_FIN), auditor size (BIG4), industries of higher litigation frequency (HLIT_IND), the number of operating segments the company operates (BIZ_SEG), and the number of geographic segments the company operates (GEO_SEG). See Appendix I for detailed definitions for all control variables.

The OLS regression model in equation (3) is estimated to investigate the effect of auditors' experience of litigation on accrual quality. As already mentioned in hypothesis I, I expect the coefficient on LIT(β_1) to be negative, implying that auditors improve audit quality after experiencing litigation.

$$\begin{aligned} AQ_{it} = {} & \alpha + \beta_1 LIT_{it} + \gamma_1 LNTA_{it} + \gamma_2 OP\_CYCLE_{it} + \gamma_3 CFO\_VOL_{it} + \gamma_4 SALE\_VOL_{it} \\ & + \gamma_5 LOSS\_FREQ_{it} + \delta_1 OFFICE\_SIZE_{it} + \delta_2 RISK\_PF_{it} + \delta_3 INFLUENCE_{it} \\ & + \delta_4 TACC\_LAG1_{it} + \delta_5 SALE\_GROWTH_{it} + \delta_6 CFO_{it} + \delta_7 LEV_{it} + \delta_8 MB_{it} \\ & + \delta_9 EQUTIY\_FIN_{it} + \delta_{10} BIG4_{it} + \delta_{11} LIST_{it} + \varepsilon_{it} \end{aligned} \quad (3)$$

Audit Fees and Litigation

The OLS regression model for audit fee is based on Ghosh and Lustgarten (2006). Since audit fees on both continuing and initial audit engagements are of our interest, I add the main test variable LIT and the interaction term between CHANGE, auditor change variable, and LIT, litigation variable. As reported in Ghosh and Lustgarten (2006), I expect β_2 to be negative due to the prevalent phenomenon

called *low balling* of audit fees. Negative β_2 can be interpreted as suggesting that after controlling for various factors that affect audit fees, audit fees are significantly lower for firms with newly engaged auditors.

For the construction of a base model, I include various control variables that are known, from prior literature, to be related with audit fees. Following Ghosh and Lustgarten (2006), I control for client size (LNTA), audit risk variables (CA, LEV, ROA, and CUR_RATIO), audit complexity (INV, LOSS, BIZ_SEG, and FOREIGN_OP), auditor size (BIG4), and the modified opinions (AUD_OPINION). In addition, the base model is augmented with additional control variables suggested by prior studies. Consistent with Ashbaugh et al. (2003), I control for audit risk related with special items in financial statements (SPECIAL), and the demand for additional audit efforts related with merger and acquisition activities (MA) and debt or equity financing activities (FINANCING). Also, I include internal control weakness (IC_WEAKNESS), restructuring activities (RESTRUCTURE), and the intensity of capital assets (CAPITAL_INT) and intangible assets (INTANG_INT) invested in a firm, which are all known to be related with audit efforts and fees (Hogan and Wilkins 2008; Firth 2002; Godfrey and Hamilton 2005).

As a result, the following regression model in equation (4) is estimated to examine how auditors adjust audit fees after litigation. With regard to H2a and H2b, I do not predict the signs of β_1 and β_2, because it is an empirical question, as discussed in the section 2.2., how auditors' experience of litigation affect audit fees.

$$\begin{aligned} LNAUDFEE_{it} = {} & \alpha + \beta_1 LIT_{it} + \beta_2 CHANGE_{it} * LIT_{it} + \beta_3 CHANGE_{it} + \beta_4 LNTA_{it} \\ & + \beta_5 CA_{it} + \beta_6 CUR\_RATIO_{it} + \beta_7 INV_{it} + \beta_8 LEV_{it} + \beta_9 ROA_{it} \\ & + \beta_{10} LOSS_{it} + \beta_{11} BIG4_{it} + \beta_{12} AUD\_OPINION_{it} \\ & + \beta_{13} FOREIGN\_OP_{it} + \beta_{14} BIZ\_SEG_{it} + \gamma_1 IC\_WEAKNESS_{it} \\ & + \gamma_2 SPECIAL_{it} + \gamma_3 FINANCING_{it} + \gamma_4 RESTRUCTURE_{it} \\ & + \gamma_5 CAPITAL\_INT_{it} + \gamma_6 INTANG\_INT_{it} + \gamma_7 MA_{it} + \nu_{it} \end{aligned} \quad (4)$$

Perceptions of Investors and Litigation

To analyze investors' perception of litigation against auditors, I investigate how investors adjust their responses to reported earnings depending on auditors' recent experience of litigation. Investors' perception is measured as cumulative abnormal returns, CAR, and I generate the interaction term between reported earnings (E or ΔE) and litigation (LIT) in order to capture the incremental adjustments to earnings response coefficients conditional on auditors' recent exposure to litigation. Following prior studies (Easton and Harris 1991; Ali and Zarowin 1992), I include earnings changes (ΔE) and earnings levels (E) in the same regression model, since both transitory and permanent components of earnings can be considered resulting in the increased explanatory power and magnitude of earnings response coefficients.

Also, I include various control variables following Ghosh and Moon (2005), because various firm characteristics are reported to be related with earnings response coefficients. The control variables are as follows: earnings persistence (PERS), earnings volatility (VOL), growth opportunities (GROWTH), leverage (LEV), the use of large auditor (BIG4), firm size (SIZE), regulatory environment (REG), systematic risk (BETA), and firm age (AGE). Larger auditors (BIG4) provide audit services of higher quality (Teoh and Wong 1993). Highly leveraged firms (LEV) concern debt covenant violations, resulting in manipulation of accruals (DeFond and Jiambalvo 1994). In addition, PERS, VOL, GROWTH, SIZE, REG, and BETA are considered as factors that affect managers' incentives in the reporting of accounting numbers (Warfield et al. 1995). As a result, the following regression model in equation (5) is estimated.

$$
\begin{aligned}
CAR_{it} = {} & \alpha + \beta_1 E_{it} + \beta_2 \Delta E_{it} + \beta_3 E_{it} * LIT_{it} + \beta_4 \Delta E_{it} * LIT_{it} \\
& + \beta_5 E_{it} * PERS_{it} + \beta_6 \Delta E_{it} * PERS_{it} + \beta_7 E_{it} * VOL_{it} + \beta_8 \Delta E_{it} * VOL_{it} \\
& + \beta_9 E_{it} * GROWTH_{it} + \beta_{10} \Delta E_{it} * GROWTH_{it} + \beta_{11} E_{it} * LEV_{it} + \beta_{12} \Delta E_{it} * LEV_{it} \\
& + \beta_{13} E_{it} * BIG4_{it} + \beta_{14} \Delta E_{it} * BIG4_{it} + \beta_{15} E_{it} * SIZE_{it} + \beta_{16} \Delta E_{it} * SIZE_{it} \\
& + \beta_{17} E_{it} * REG_{it} + \beta_{18} \Delta E_{it} * REG_{it} + \beta_{19} E_{it} * BETA_{it} + \beta_{20} \Delta E_{it} * BETA_{it} \\
& + \beta_{21} E_{it} * AGE_{it} + \beta_{22} \Delta E_{it} * AGE_{it} + \beta_{23} LIT_{it} + \beta_{24} PERS_{it} + \beta_{25} VOL_{it} \\
& + \beta_{26} GROWTH_{it} + \beta_{27} LEV_{it} + \beta_{28} BIG4_{it} + \beta_{29} SIZE_{it} + \beta_{30} REG_{it} \\
& + \beta_{31} BETA_{it} + \beta_{32} AGE_{it} + \nu_{it}
\end{aligned}
\tag{5}
$$

3.4. Descriptive Statistics

Since sample construction varies with the model specifications, I separately report descriptive statistics for each of the samples as shown in Panel A, B, and C of Table 2. Three alternative versions of the main test variable LIT are commonly employed across the samples.

In the analyses of audit quality and fees, the firm-year observations without sufficient segment data required to generate BIZ_SEG and FOREIGN_OP variables are lost. To better capture descriptive statistics of my sample, I report summary statistics of all the variables except BIZ_SEG and FOREIGN_OP for 17,046 observations in Panel A and for 35,335 observations in Panel B. With regard to summary statistics of BIZ_SEG and FOREIGN_OP variables, I report them in the bottoms of Panel A and Panel B with different numbers of observations. As a result, 8,967 and 14,997 observations are used to calculate them respectively in Panel A and in Panel B.

Regarding the main test variables of litigation, the mean values of LIT_N are generally less than the median values OF LIT_N. Since most of the litigations are concentrated on large auditors, the distributions of LIT_N are negatively skewed. To mitigate such a problem, I also introduce LIT_R, which presents the frequency of

litigation after controlling for auditor size. As shown in each Panel of Table 2, the mean and median values of LIT_R are very close, implying that concern for the skewed distributions of LIT_N is effectively alleviated.

[Insert Table 2 about here]

IV. Empirical Results

4.1. The Effect of Auditors' Experience of Litigation on Audit Quality

Table 3 shows that auditors' experience of litigation positively affect audit quality, measured as accrual quality based on the modified Dechow and Dichev approach. In column (1), (2), and (3) of Model A, the coefficients on LIT variables are significantly negative with p-values are less than 0.01, implying that auditors who experienced litigation in the previous three years *more conservatively* audit their clients in the current year. The coefficients on the control variables of innate firm characteristics that are related to accrual quality are, in general, statistically significant. In addition, the signs of them are consistent with Dechow and Dichev (2002) and Francis et al.(2005), which supports the validity of the model specification in this paper.

In column (4), (5), and (6) of Model B, I include more control variables that may affect accrual quality. As a result, adjusted R-squared increases to 40% from 35% of Model A. The results from model B are in general consistent with those from model A. Consistent with Model A, the control variables of the innate firm characteristics, LNTA, OP_CYCLE, CFO_VOL, SALE_VOL, and LOSS_FREQ, load significantly

with the predicted signs. The coefficients on three different versions of LIT are still significantly negative, even though the coefficient on LIT_N is weaken to become marginally significant at 10% level due to various control variables.

[Insert Table 3 about here]

In summary, compared to the firms audited by auditors without the experience of litigation, the firms audited by auditors with the experience of litigation in the previous three years have lower standard deviation of the estimation errors in accrual, and higher accrual quality. In addition, more intensively auditors experience litigation in the previous years, *more conservatively* auditors audit their clients in the current year. These results are consistent with Lennox and Li (2014), which documented that auditors' experience of litigation subsequently reduces misstatements of financial reports, improving financial reporting quality.

4.2. The Effect of Auditors' Experience of Litigation on Audit Fees

Levels Specifications

Panel A of Table 4 reports the main results in the analysis of litigation against auditors and audit fees. In column (1), (2), and (3) of Model A, the coefficients on LIT variables are significantly positive. Since I additionally include CHANGE and CHANGE*LIT in the model, the significantly positive coefficients on LIT variables suggest that audit fees are, in general, set higher for firms audited by auditors with experience of litigation. The coefficients on CHANGE*LIT are also significantly positive except one on CHANGE*LIT_I. These results indicate that when auditors

experienced litigation in the previous three years, they charge audit fee premium to their new clients, consequently reducing the magnitudes of audit fee discounts on initial engagements. These results are consistent with the hypothesis that auditors' experience of litigation leads to auditors' audit pricing reflecting increased audit efforts and proactive risk assessments.

After including more control variables in Model B, I find that the findings in Model B are in general consistent with those in Model A. Audit fees are set higher for continuing clients, and less discounted for new clients, when auditors experienced litigation in the previous three years.

However, I also find that the coefficient on CHANGE*LIT_I is insignificant, which is not consistent with the coefficients on CHANGE*LIT_N and CHANGE*LIT_R. Since LIT_I is defined as a dichotomous variable taking the value of one if auditors experienced at least one lawsuit in the previous three years, LIT_I may not fully capture dynamic nature of the phenomena in which auditors adjust their behaviors after litigation. In other words, auditors may behave differently depending on the intensity of their experience of litigation or whether how much time elapses since the initiation of their exposure to litigation. Thus, in an attempt to capture the varying effects under different stages of auditors' exposure to litigation, I decompose LIT_I, an indicator variable of exposure to litigation, into two indicator variables, LIT_NEW and LIT_CON: LIT_NEW, defined as one if a firm's auditor becomes exposed to litigation for the first time in the current year; LIT_CONT, defined as one if a firm's auditor has been continuously exposed to litigation at least for two consecutive years. I conduct the supplemental tests using these variables, and the results are reported in Panel B of Table 4. Firstly, the coefficient on LIT_CON is significantly positive, while the coefficient on LIT_NEW is insignificant. Thus, it

follows that for continuing clients, auditors continuously exposed to litigation set higher audit fees, but auditors initially exposed to litigation do not adjust immediately audit fees. Secondly, only the coefficient on CHANGE*LIT_NEW is significantly positive, suggesting that only auditors initially exposed to litigation decrease the extent to which audit fees are discounted in their first years of audit engagements. In other words, auditors charge fee premium to their new clients only when they becomes exposed to litigation for the first time in the current year. These findings collectively imply that the effect of auditors' exposure to litigation on audit fees vary with whether or not auditors are initially exposure to litigation in the current year.

[Insert Table 4 about here]

Changes Specifications

Following Ghosh and Lustgarten (2006), I employ first-difference specifications to further examine how auditors adjust their behavior in terms of audit fees after experiencing litigation. Table 5 shows the effect of changes in the intensity of auditors' exposure to litigation on changes in audit fees. The findings from changes specifications should be interpreted with caution. Since a dependent variable, ΔLAUDFEE, is defined as the first-difference in the natural log of audit fees, the coefficient on ΔLIT_N (ΔLIT_R) presents *the rate* at which audit fees increase as LIT_N (LIT_R) increase by one unit.

In the case of new audit engagements, i.e., first years of audits, the results in Table 5 are in general consistent with those in Panel A of Table 4. The coefficients on CHANGE*ΔLIT_N and CHANGE*ΔLIT_R are both significantly positive,

indicating that auditors more reduce the magnitude of initial fee discounting as they face greater intensity of exposure to litigation. In addition, the sum of the coefficients on ΔLIT_N (ΔLIT_R) + CHANGE*ΔLIT_N (CHANGE*ΔLIT_R) is significant, implying that increases in auditors' exposure to litigation drive upward audit fees at a greater rate.

In the case of continuing clients, however, the results in Table 5 are inconsistent with those in Panel A of Table 4, which requires more sophisticated interpretation. The coefficients on ΔLIT_N and ΔLIT_R are both positive but insignificant, which suggests that for continuing clients, the rates at which audit fees increase do not vary with changes in the intensity of auditors' exposure to litigation.

In summary, the findings from Table 4 to Table 5 collectively provide evidence consistent with auditors adjusting audit fees upward after litigation. In addition, auditors' adjustments of audit fees become more pronounced in initial audit engagements, that is, auditors increase audit fees at an increasing rate for new clients as they more experienced litigation in the recent past.

Initial Fee Discounting and Type of Auditor Switch

To further investigate whether the effect of auditors' experience of litigation on initial audit fee discounting is sensitive to the type of auditor switch, I decompose CHANGE, an auditor change variable, into two variables, CHANGE_B4 and CHANGE_NB4: CHANGE_B4 is defined as one if a firm's newly engaged auditor is a big4 auditor; CHANGE_NB4 is defined as one if a firm's newly engaged auditor is a non-big4 auditor. By comparing the coefficient on CHANGE_B4* ΔLIT_N(ΔLIT_R) and that on CHANGE_NB4* ΔLIT_N(ΔLIT_R), it can be shown whether or not big4 and non-big4 auditors behave differently in adjusting the

magnitudes of initial fee discounts.

First of all, column (1) and (4) of Table 6 are estimated without litigation variables to check whether the sample in this paper is valid for lowballing tests. Both the coefficients on CHANGE_B4 and CHANGE_NB4 are significant, verifying that initial fee discounting behavior is observed for both big4 and non-big4 new auditors. Although the coefficients on both types of auditor switch is not significantly different, the magnitude of parameter estimate is larger for non-big4 auditors. This result is consistent with the findings from Ghosh and Lustgarten (2006) that initial fee discounting is more pronounced in the atomistic audit market consisting of non-big4 auditors.

The rest columns of Table 6 show that new auditors who experienced litigation in the previous three years reduce the magnitude of initial fee discounting, regardless of whether they are big4 or non-big4 auditors. In column (2) and (5), the coefficients on CHANGE_B4*ΔLIT_N and CHANGE_NB4* ΔLIT_N are both significantly positive, and not significantly different from each other. Similarly, these results are not sensitive to the use of alternative litigation variable ΔLIT_N as shown in column (3) and (6).

[Insert Table 6 about here]

4.3. The Effect of Auditors' Experience of Litigation on Investors' Perception of Audit Quality

Investors' Perception of Audit Quality

Table 7 shows how litigation against auditors affects earnings response coefficients. First, the sum of coefficients (β_1+β_2) is significantly positive across all

models in Table 7, indicating that earnings levels and changes are positively associated with cumulative abnormal returns, consistent with prior literature. Second, the sum of coefficients (β_3+β_4) is significantly negative across all models, suggesting that investors functionally interpret litigation against auditors as a signal of the impairment of audit quality. When auditors have been involved in litigation in the previous three years, investors functionally reduce a premium for reported earnings without fully understanding auditors' corrective behavior following past litigation. With regard to the third hypothesis, the results in Table 7 show that investors perceive audit quality as decreasing with auditors' exposure to litigation, consistent with investors not fully exploiting the implications of auditor litigation.

In addition, I briefly review the results of the control variables. ERCs are positively associated with GROWTH, SIZE and AGE, consistently across all models in Table 7. ERCs increase with greater growth opportunities, firm size, and firm age. The signs of (β_9+β_{10}), (β_{15}+β_{16}), and (β_{21}+β_{22}) are consistent with those reported in Ghosh and Moon (2005). In contrast, ERCs are negatively associated with earnings volatility (VOL) and leverage (LEV), the results robust across all models in Table 7. The signs of (β_7+β_8) and (β_{11}+β_{12}) are significantly negative, consistent with the findings of Ghosh and Moon (2005). Lastly, ERCs do not vary with earnings persistence (PERS), the use of larger auditor (BIG4), regulatory environment (REG), and systematic risk (BETA). In particular, the insignificant results with BIG4 are not consistent with those in Teoh and Wong (1993) documenting higher earnings quality for firms of large auditors.

[Insert Table 7 about here]

Agency Costs as a Moderating Factor

In this subsection, I conduct subsample analysis in order to provide possible explanation on why ERCs decrease with the intensity of auditors' exposure to litigation. Since ERCs are higher for earnings of higher quality (Teoh and Wong 1993; Balsam et al. 2003; Dechow et al. 2010), the focus of analysis is put on the channel through which litigation against auditors affects perceived earnings quality.

Following Ang et al.(2000) and Singh and Davidson III (2003), I introduce two proxies for agency costs: Expense ratio, defined as selling, general, and administrative (SG&A hereafter) expenses scaled by total sales; Asset turnover ratio, defined as sales scaled by total assets. Since SG&A are mostly under managerial discretion, it reflects manager-driven excessive pay and perquisite consumption. Asset utilization, by definition, represents how efficiently assets are utilized to create value for shareholders. Thus, agency costs are greater when a firm's expense ratio is higher and asset turnover ratio is lower.

Using asset turnover and expense ratio, I divide the pooled sample into two subgroups, above-median and below-median groups. Panel A of Table 8 shows that the sum of coefficients (β_3+β_4) is significantly negative in the subgroup with low asset turnover, but insignificant in the subgroup with high asset turnover. In other words, the negative association between ERCs and auditors' exposure to litigation is significant only in firms with low asset turnover ratio. Since the data on SG&A are not available to every firm-year observation, the subsample analysis with expense ratio reduced the sample size to 20,256 from 24,889 in Panel B. The results of Panel B are also similar to those of Panel A. Investors reduce ERCs for firms with litigation-involved auditors, only when those firms bear greater agency costs.

In a word, investors take into account firms' agency costs when evaluating

reported earnings audited by auditors who experienced litigation. Litigation against auditors provides a negative signal on earnings quality only when firms bear greater agency costs.

[Insert Table 8 about here]

V. Additional Tests

In the section of V. Additional Tests, I conduct sensitivity tests with alternative measures. Firstly, as alternative measures of auditors' exposure to litigation, I introduce two variables, LIT_A1 and LIT_A2. LIT_A1 (LIT_A2) is defined as the number of lawsuit cases an auditor experienced during the previous three years scaled by the sum of total assets (audit fees) of clients audited by the auditor. Total assets and audit fees of clients audited by an auditor are proxies for auditor size, as in prior literature.

With regard to the analysis of litigation and audit quality, Table 9 shows the results of sensitivity analysis using the model reported in column (5) of Table 5. LIT_R is replaced with two alternative litigation measures, LIT_A1 and LIT_A2. The coefficients on LIT_A1 and LIT_A2 are significantly negative with p-values less than 0.05 and 0.10 respectively, providing robust evidence that auditors provide audits of higher quality as they have been more intensively exposed to litigation in the previous three years.

[Insert Table 9 about here]

In Table 10, I confirm that the main results reported in Table 4 and Table 5 are insensitive to the use of alternative litigation measures. In Panel A, I substitute LIT_A1 and LIT_A2 for LIT_R, and conduct the same tests as those reported in Table 4. As a result, I find that the coefficients on LIT_A1 (LIT_A2) are significantly positive with p-values less than 0.01, suggesting that audit fees are set higher for firms with incumbent auditors that experienced litigation in the previous three years. In addition, the coefficients on CHANGE*LIT_A1 (CHANGE*LIT_A2) are also significantly positive with p-values less than 0.01, indicating that auditors charge audit fee premium on initial audit engagements when they experienced litigation recently. The results with changes specifications are also reported in Panel B of Table 10. First-differences of LIT_A1 and LIT_A2 are used as the test variables in Panel B. As inferred from the significantly positive coefficients on CHANGE*ΔLIT_A1 (CHANGE*ΔLIT_A2), auditors reduce the magnitudes of fee discounts for new clients at a greater rate as they experience litigation incrementally in the current year. This pattern holds also for continuing clients, which is inconsistent with the insignificant coefficients on CHANGE*ΔLIT_N (CHANGE*ΔLIT_R) in Table 5.

[Insert Table 10 about here]

Lastly in Table 11, I conduct several sensitivity tests using alternative measures of cumulative abnormal returns, litigation exposure, and earnings. Following Ghosh and Moon (2005), I calculate CAR2, defined as cumulative abnormal returns for the *15-month period* ending 3 months after the fiscal year end, and report the results in Panel A. In Panel B, I also check whether the main results in Table 7 are robust to the use of alternative litigation measures (LIT_A1 and LIT_A2), and find that the

main results still hold. In Panel C, I turn to the specification of earnings levels and earnings changes. Alternatively, I calculate E2 as income before extraordinary items scaled by the *lagged total assets*, and replace E (ΔE) with E2 (ΔE2). Consistent with the main results in Table 7, I find that ERCs decrease with auditors' exposure to litigation.

[Insert Table 11 about here]

Overall, the consistent results of various sensitivity checks reported in Table 9, Table 10, and Table 11 collectively support the main findings in this paper.

VI. Concluding Remarks

This study provides a comprehensive view on the consequences of litigation against auditors.

First, using the methodology suggested by Dechow and Dichev (2002) and McNichols (2002), I reported that auditors increase audit efforts to improve audit quality after they experienced litigation. These results add to evidence that auditors change their behavior after litigation, possibly motivated by the awareness of litigation risk and learning effects, and accord with the findings of Lennox and Li (2014).

Second, this study, with the two competing hypotheses[4], investigates how auditors adjust audit fees after litigation. Consistent with the increased audit efforts, auditors charge higher audit fees for both continuing and new clients as they

[4] Details of the two competing hypothesis are introduced in the section 2.2. Litigation and Audit Fees.

experienced more litigation. With respect to initial fee discounting for new clients, auditors significantly reduce the magnitudes of fee discounts in the first years of audits. These results are re-confirmed in the analysis of changes specifications. That is, changes in the intensity of auditors' exposure to litigation influence the rate at which the magnitude of low balling is reduced. In a word, incremental changes as well as levels in auditors' experience of litigation affect audit pricing mechanism for new clients. However, with regard to continuing clients, I found evidence that only levels in auditors' litigation experience increases audit fees while changes in such experience do not affect the rate at which audit fees are adjusted.

Lastly, I examined how investors, the principal participants in the capital market, interpret litigation against auditors and reflect it into earnings-return relations. Specifically, I showed that investors reduce a premium for reported earnings when those earnings are audited by auditors who experienced litigation. One possible explanation on this result, I suggested, is that agency costs moderate the negative association between ERCs and auditors' exposure to litigation. The empirical results reveal that investors regard litigation against auditors as a signal for the impairment of earnings quality only when facing higher agency costs.

To my knowledge, this study is the first to extend the prior studies documenting initial fee discounting to the settings with auditors exposed to litigation. Although auditors have incentives to offer fee discounts to attract new clients, the magnitudes of the initial fee discounts are moderated depending on the auditors' exposure to litigation. In addition, I looked into the negative effect of auditor litigation on investors' perception of audit quality, and that effect is pronounced only in firms with higher agency costs. By highlighting agency costs as a moderating factor that affects the association between ERCs and litigation, I shed light on the channel through

which investors' interpretation of litigation affects perceived earnings quality. Lastly, in terms of the audit pricing, this paper shows that auditors' adjustments of audit fees vary depending on the intensity of auditors' exposure to litigation, and that the effects of audit firms' concern over litigation risk outweigh those of reputational damage, both of which are believed to be new findings in accounting literature.

Despite some contributions mentioned above, it is worth noting some limitations that can be overcome by future research. First, this study does not differentiate legal cases in terms of the severity of wrongdoing. Intuitively, the effects of auditor litigation can vary with how severely auditors did wrong in audits that make auditors sued in litigation and/or with the amounts of financial settlements in such litigation. Second, I removed some legal cases from my lawsuit sample, because I was not able to fully identify the auditee names in the legal cases. Reliance on hand-collection cannot completely exclude the possibility that sample construction, more or less, is subject to researchers' discretion. Thus, the findings of this paper should be interpreted in a more cautious way. Third, of the possible consequences of litigation against auditors, only limited part is examined in this paper. I believe future research will extend the findings of this paper to provide a bigger picture of the issues discussed here.

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Appendix: Variable Definitions

Variable	Definition
Dependent Variables	
AQ	The standard deviation of firm i's residuals over the past five years from year t-4 to year t, from cross-sectional year-industry specific estimations of the modified Dechow and Dichev(2002) model, suggested by McNichols(2002)
LNAUDFEE	natural logarithm of audit fees paid to auditors in year t
CAR1	cumulative market-adjusted returns for the 12-month period ending three months after the last month of fiscal year, where market-adjusted returns are calculated as raw returns less value-weighted CRSP market returns
CAR2	cumulative market-adjusted returns for the 15-month period ending three months after the last month of fiscal year, where market-adjusted returns are calculated as raw returns less value-weighted CRSP market returns
Test Variables	
LIT_N	the number of lawsuit cases in which an auditor was involved during the previous three years before audit service is rendered to its client
LIT_R	the ratio of LIT_N to the number of clients for which an auditor performed audits in the current year t
LIT_I	an indicator variable that has the value of one if an auditor experienced at least one lawsuit case during the previous three years before audit service is rendered to its client, and zero otherwise
LIT_NEW	an indicator variable that has the value of one if an auditor becomes exposed to litigation for the first time in the current year, and zero otherwise
LIT_CONT	an indicator variable that has the value of one if an auditor has been continuously exposed to litigation at least for two consecutive years
LIT_A1	the ratio of LIT_N to the natural logarithm of the sum of clients' total assets audited by an auditor in the current year
LIT_A2	the ratio of LIT_N to the natural logarithm of the sum of audit fees charged to clients by an auditor in the current year
Control Variables	
LNTA	natural logarithm of total assets
OP_CYCLE	the average of operating cycle over the past 10 years, where operating cycle is calculated as 360/(sales/average of account receivables in years t-1 and t) + 360/(cost of goods sold/average of inventory in years t-1 and t)
CFO_VOL	the standard deviation of cash flow from operations over the past 10 years
SALE_VOL	the standard deviation of sales over the past 10 years

LOSS_FREQ	the frequency of negative earnings over the past 10 years
OFFICE_SIZE	the natural logarithm of the total dollar amount of audit fees charged to all audit clients within an auditor office in year t
RISK_PF	the average clientele portfolio risk within an auditor office, calculated as (-1) multiplied by the sum of standardized mean values of client assets, leverage, and return on assets within each office-year
INFLUENCE	the total dollar amount of audit and non-audit fees charged to a specific client in year t divided by the total fees charged to all clients within an auditor office in year t
TACC_LAG1	Total accruals in year t-1, where total accruals are calculated as operating income less cash flow from operations scaled by lagged total assets
SALE_GROWTH	One-year percentage growth in a firm's sales from year t-1 to year t
CFO	cash flows from operations scaled by lagged total assets
LEV	total debt scaled by total assets
MB	a firm's market value of equity divided by book value of equity at the end of year t
EQUITY_FIN	an indicator variable that has the value of one if the number of common shares outstanding increases by 10% or more in year t, and zero otherwise
BIG4	an indicator variable that has the value of one if an auditor is one of the big4 audit firms
CA	current assets scaled by total assets
INV	inventory scaled by total assets
CUR_RATIO	current assets scaled by current liabilities
ROA	net income before extraordinary items scaled by total assets at the end of year t-1
AUD_OPINION	an indicator variable that has the value of one if the auditor issues a qualified opinion
FOREIGN_OP	the ratio of sales revenue generated under geographical segments outside the United States to total reported sales revenue
BIZ_SEG	the number of business segments a firm operates
IC_WEAKNESS	an indicator variable that has the value of one if a firm's internal controls are reported to be ineffective in the auditor's assessment of internal control
SPECIAL	an indicator variable that has the value of one if a firm reports special items, and zero otherwise.
FINANCING	an indicator variable that has the value of one if a firm's long-term debt increased by more than 20% or the number of common shares outstanding increased by more than 10%
RESTRUCTURE	an indicator variable that has the value of one if any of the following COMPUSTAT data items are non-zero in the previous three years : RCD, RCEPS, RCP, RCA
CAPITAL_INT	Intensity of capital assets, measured as net value of property, plant, and equipment scaled by total assets.
INTANG_INT	Intensity of intangible assets, measured as R&D and advertising expense scaled by total assets

MA	an indicator variable that has the value of one if a firm is engaged in a merger or acquisition activity
E	Income before extraordinary items scaled by the market value of equity at the end of year t-1
PERS	the first-order autocorrelation of income before extraordinary items scaled by lagged total assets, estimated for last 16 quarters
VOL	the standard deviation of income before extraordinary items scaled by lagged total assets, estimated for last 16 quarters
GROWTH	the ratio of the sum of the market value of equity and the book value of debt to the book value of total assets at the end of year t-1
REG	an indicator variable that has the value of one for firms in regulated industries with two-digit SIC codes between 40 and 49 or between 60 and 63, and zero otherwise
SIZE	the natural logarithm of market value of equity at the end of year t-1
BETA	the systematic risk computed on a rolling basis using the past 60 monthly stock returns, where each firm's monthly stock returns are regressed on value-weighted CRSP returns

Table 1. Lawsuits against auditors

Panel A. Total number of lawsuits (2001 ~ 2014)

	number of lawsuits
Lawsuits against accounting firms	1388
(-) Lawsuits related to non-audit services of audit firms	99
(-) Lawsuits in which auditee and related parties are unknown	296
Lawsuits in which auditee are identified	993

Panel B. Number of lawsuits by auditors

auditor name	**number of lawsuits (A)**	**portion of total lawsuits**	**number of audits (B)**	**portion of total audits**	**frequency of litigation (A/B)**
Ernst & Young	213	21.45%	35238	19.36%	0.60%
PricewaterhouseCoopers	200	20.14%	33302	18.30%	0.60%
KPMG	152	15.31%	24024	13.20%	0.63%
Deloitte & Touche	139	14.00%	37555	20.63%	0.37%
Arthur Andersen	47	4.73%	6192	3.40%	0.76%
Grant Thornton	40	4.03%	21534	11.83%	0.19%
BDO Seidman	39	3.93%	4204	2.31%	0.93%
McGladrey & Pullen	8	0.81%	1545	0.85%	0.52%
Sherb & Co	7	0.70%	677	0.37%	1.03%
MaloneBailey	5	0.50%	1608	0.88%	0.31%
Goldstein Golub Kessler	5	0.50%	337	0.19%	1.48%
Murrell Hall McIntosh & Co	4	0.40%	69	0.04%	5.80%
Frazer Frost	4	0.40%	36	0.02%	11.11%

Rothstein Kass & Company	3	0.30%	317	0.17%	0.95%
Amper Politziner & Mattia	3	0.30%	227	0.12%	1.32%
Feldman Sherb & Co	3	0.30%	104	0.06%	2.88%
Other audit firms with one or two lawsuits	121	12.19%	15039	8.26%	0.80%
Total sum	993	100.00%	182008	100.00%	0.55%

Panel C. Frequency of litigation

	# of audit firms	**Minimum**	**Median**	**Mean**	**Maximum**	**Std Dev**
Big4	4	0.0037	0.0060	0.0055	0.0063	0.0012
Non-Big4	118	0.0011	0.0105	0.0481	1.0000	0.1238
Pooled Sample	122	0.0011	0.0099	0.0463	1.0000	0.1214

(*Each auditor is equally weighted in the calculation of the statistics presented above. See the statistics of LIT_R in Table 2 for auditor size-weighted average of frequency of litigation, where auditor size is the number of audits delivered by each auditor)

Table 2. Descriptive statistics

Panel A. Analysis of accrual quality and litigation

Variable	N	Mean	Std Dev	Q1	Median	Q3
AQ	17046	0.07	0.07	0.03	0.05	0.08
LIT_N	17046	61.86	36.41	27.00	73.00	89.00
LIT_R	17046	0.01	0.01	0.01	0.01	0.02
LIT_I	17046	0.86	0.35	1.00	1.00	1.00
LNTA	17046	6.11	2.28	4.53	6.21	7.72
OP_CYCLE	17046	148.33	128.90	79.80	121.92	177.51
CFO_VOL	17046	0.10	0.13	0.04	0.06	0.11
SALE_VOL	17046	0.27	0.24	0.12	0.20	0.34
LOSS_FREQ	17046	0.30	0.32	0.00	0.20	0.50
OFFICE_SIZE	17046	16.70	1.90	15.54	17.09	18.11
RISK_PF	17046	-0.48	0.66	-0.95	-0.66	-0.20
INFLUENCE	17046	0.13	0.21	0.02	0.05	0.14
TACC_LAG1	17046	-0.02	0.11	-0.06	-0.01	0.03
SALE_GROWTH	17046	0.11	0.29	-0.03	0.07	0.19
PPE_GROWTH	17046	0.09	0.39	-0.07	0.02	0.14
CFO	17046	0.05	0.19	0.03	0.08	0.14
LEV	17046	0.56	0.48	0.31	0.49	0.67
MB	17046	2.64	4.32	1.19	1.90	3.18
EQUITY_FIN	17046	0.12	0.33	0.00	0.00	0.00
BIG4	17046	0.74	0.44	0.00	1.00	1.00
HLIT_IND	17046	0.29	0.45	0.00	0.00	1.00
BIZ_SEG	8967	2.85	2.00	1.00	3.00	4.00
GEO_SEG	8967	3.21	2.62	1.00	2.00	4.00

See Appendix for the variable definitions.

Panel B. Analysis of audit fee and litigation

Variable	N	Mean	Std Dev	Q1	Median	Q3
LNAUDFEE	35335	13.28	1.50	12.23	13.44	14.32
ΔLNAUDFEE	31268	0.11	0.36	-0.06	0.04	0.20
LIT_N	35335	52.54	39.06	1.00	66.00	82.00
ΔLIT_N	31268	0.12	12.01	-4.00	0.00	5.00
LIT_R	35335	0.03	0.02	0.01	0.03	0.05
ΔLIT_R	31268	0.00	0.01	0.00	0.00	0.00
LIT_I	35335	0.77	0.42	1.00	1.00	1.00
CHANGE	35335	0.06	0.24	0.00	0.00	0.00
LNTA	35335	5.44	2.46	3.72	5.56	7.22
CA	35335	0.51	0.27	0.30	0.51	0.73
INV	35335	0.10	0.13	0.00	0.05	0.16
CUR_RATIO	35335	2.95	3.47	1.19	1.94	3.30
LEV	35335	1.00	3.39	0.30	0.50	0.71
ROA	35335	-0.59	5.56	-0.11	0.03	0.08
LOSS	35335	0.48	0.50	0.00	0.00	1.00
BIG4	35335	0.64	0.48	0.00	1.00	1.00
AUD_OPINION	35335	0.40	0.49	0.00	0.00	1.00
IC_WEAKNESS	35335	0.04	0.19	0.00	0.00	0.00
SPECIAL	35335	0.63	0.48	0.00	1.00	1.00
FINANCING	35335	0.33	0.47	0.00	0.00	1.00
RESTRUCTURE	35335	0.44	0.50	0.00	0.00	1.00
CAPITAL_INT	35335	0.28	0.31	0.06	0.16	0.39
INTANG_INT	35335	0.03	0.07	0.00	0.00	0.01
LIST	35335	0.61	0.49	0.00	1.00	1.00
MA	35335	0.19	0.39	0.00	0.00	0.00
FOREIGN_OP	14997	0.40	0.28	0.15	0.35	0.59
BIZ_SEG	14997	2.59	1.88	1.00	2.00	4.00

See Appendix for the variable definitions.

Panel C. Analysis of cumulative abnormal returns and litigation

Variable	N	Mean	Std Dev	Q1	Median	Q3
CAR1	24889	-0.03	0.30	-0.22	-0.04	0.15
LIT_N	24889	61.14	35.58	41.00	71.00	87.00
LIT_R	24889	0.03	0.02	0.03	0.03	0.05
LIT_I	24889	0.86	0.35	1.00	1.00	1.00
E	24889	0.02	0.12	0.01	0.05	0.07
ΔE	24889	0.01	0.13	-0.02	0.00	0.02
PERS	24889	0.23	0.33	-0.02	0.19	0.46
VOL	24889	0.02	0.03	0.00	0.01	0.02
GROWTH	24889	1.41	1.26	0.69	1.08	1.70
LEV	24889	0.56	0.29	0.35	0.55	0.76
REG	24889	0.26	0.44	0.00	0.00	1.00
SIZE	24889	6.42	1.94	5.01	6.40	7.75
BETA	24889	1.13	0.76	0.58	1.01	1.51
AGE	24889	22.44	16.09	11.33	17.34	29.25

See Appendix for the variable definitions.

Table 3. The effect of auditors' experience of litigation on audit quality

Dep. Variable = AQ	Model A			Model B		
	(1)	(2)	(3)	(4)	(5)	(6)
LIT_N	-0.0001***			-0.0001*		
	(-5.33)			(-1.77)		
LIT_R		-0.2571***			-0.1399**	
		(-4.89)			(-2.27)	
LIT_I			-0.0200***			-0.0106***
			(-5.82)			(-2.65)
LNTA	-0.0059***	-0.0062***	-0.0058***	-0.0061***	-0.0061***	-0.0060***
	(-11.81)	(-13.04)	(-12.09)	(-10.05)	(-10.03)	(-9.89)
OP_CYCLE	0.0000**	0.0000**	0.0000**	0.0000*	0.0000*	0.0000*
	(2.51)	(2.51)	(2.45)	(1.89)	(1.90)	(1.89)
CFO_VOL	0.2015***	0.2007***	0.1972***	0.1448***	0.1450***	0.1443***
	(10.64)	(10.61)	(10.49)	(8.44)	(8.47)	(8.42)
SALE_VOL	0.0391***	0.0392***	0.0387***	0.0304***	0.0302***	0.0298***
	(6.93)	(6.92)	(6.88)	(5.38)	(5.33)	(5.29)
LOSS_FREQ	0.0197***	0.0201***	0.0203***	-0.0047	-0.0045	-0.0043
	(5.93)	(6.06)	(6.12)	(-1.46)	(-1.40)	(-1.31)
OFFICE_SIZE				-0.0008	-0.0010	-0.0009
				(-1.00)	(-1.19)	(-1.12)
RISK_PF				0.0030	0.0029	0.0014
				(1.38)	(1.31)	(0.64)
INFLUENCE				-0.0041	-0.0044	-0.0055
				(-0.82)	(-0.87)	(-1.10)
TACC_LAG1				0.0068	0.0068	0.0068
				(0.73)	(0.73)	(0.73)
CFO				-0.0292***	-0.0291***	-0.0290***
				(-3.48)	(-3.47)	(-3.46)

SALE_GROWTH				-0.0002	-0.0002	-0.0004
				(-0.06)	(-0.10)	(-0.16)
PPE_GROWTH				0.0017	0.0017	0.0016
				(0.95)	(0.94)	(0.89)
LEV				0.0339***	0.0339***	0.0335***
				(11.41)	(11.45)	(11.30)
MB				0.0003	0.0004	0.0004
				(1.49)	(1.52)	(1.54)
EQUITY_FIN				0.0066***	0.0066***	0.0065***
				(3.67)	(3.69)	(3.67)
BIG4				0.0049	0.0028	0.0013
				(1.15)	(0.81)	(0.43)
BIZ_SEG				0.0008**	0.0008**	0.0008**
				(2.48)	(2.40)	(2.31)
GEO_SEG				0.0005*	0.0005*	0.0005*
				(1.74)	(1.77)	(1.79)
HLIT_IND				0.0009	0.0008	0.0009
				(0.27)	(0.24)	(0.25)
INTERCEPT	0.0867***	0.0874***	0.0960***	0.0832***	0.0855***	0.0912***
	(15.47)	(15.52)	(16.09)	(6.14)	(6.39)	(6.64)
Observations	17,046	17,046	17,046	8,967	8,967	8,967
Adjusted R-squared	0.456	0.456	0.459	0.432	0.432	0.433
Year FE	YES	YES	YES	YES	YES	YES
Industry dummies	YES	YES	YES	YES	YES	YES

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

Table 4. The effect of auditors' experience of litigation on audit fees: Level specifications

Panel A. Audit fee premium in continuing and initial audit engagements

Dep. Variable =	Model A			Model B		
LNAUDFEE	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
LIT_N	0.0023***			0.0022***		
	(4.01)			(4.08)		
LIT_R		1.4224**			1.4304**	
		(2.16)			(2.29)	
LIT_I			0.3149***			0.2818***
			(9.70)			(9.07)
*CHANGE*LIT_N*	0.0026***			0.0019***		
	(3.47)			(2.76)		
*CHANGE*LIT_R*		3.9879***			2.7601**	
		(2.90)			(2.15)	
*CHANGE*LIT_I*			-0.0396			-0.0580
			(-0.87)			(-1.34)
CHANGE	-0.1539***	-0.1598***	-0.0466	-0.1423***	-0.1439***	-0.0432
	(-5.58)	(-5.25)	(-1.47)	(-5.34)	(-4.91)	(-1.40)
LNTA	0.5201***	0.5212***	0.5129***	0.5072***	0.5082***	0.5016***
	(77.95)	(78.43)	(77.22)	(77.72)	(78.26)	(76.67)
CA	0.6247***	0.6239***	0.6112***	0.4911***	0.4881***	0.4794***
	(12.33)	(12.33)	(12.23)	(9.46)	(9.43)	(9.32)
CUR_RATIO	-0.0506***	-0.0503***	-0.0497***	-0.0453***	-0.0449***	-0.0446***
	(-12.91)	(-12.87)	(-12.70)	(-11.97)	(-11.90)	(-11.82)
INV	-0.2891***	-0.2923***	-0.2974***	-0.2326**	-0.2345**	-0.2405**
	(-2.84)	(-2.87)	(-2.96)	(-2.34)	(-2.36)	(-2.45)
LEV	0.0082	0.0063	0.0211	0.0092	0.0073	0.0203
	(0.31)	(0.24)	(0.81)	(0.38)	(0.31)	(0.85)
ROA	-0.2104***	-0.2109***	-0.2164***	-0.1823***	-0.1824***	-0.1873***
	(-6.10)	(-6.11)	(-6.49)	(-5.48)	(-5.49)	(-5.79)
LOSS	0.1495***	0.1494***	0.1414***	0.1059***	0.1057***	0.1003***

	(9.73)	(9.74)	(9.32)	(7.35)	(7.34)	(7.03)
BIG4	0.2702***	0.3909***	0.2967***	0.2647***	0.3796***	0.3005***
	(5.67)	(11.66)	(10.31)	(5.86)	(12.06)	(11.09)
AUD_OPINION	0.0657***	0.0686***	0.0685***	0.0421***	0.0449***	0.0457***
	(5.43)	(5.67)	(5.74)	(3.72)	(3.96)	(4.08)
FOREIGN_OP	0.1643***	0.1635***	0.1801***	0.1572***	0.1566***	0.1717***
	(5.04)	(4.98)	(5.58)	(5.09)	(5.03)	(5.59)
BIZ_SEG	0.0430***	0.0430***	0.0441***	0.0385***	0.0386***	0.0397***
	(8.79)	(8.79)	(9.12)	(8.29)	(8.29)	(8.60)
IC_WEAKNESS				0.4167***	0.4134***	0.4047***
				(16.48)	(16.31)	(16.30)
SPECIAL				0.0449***	0.0451***	0.0409***
				(3.61)	(3.63)	(3.31)
FINANCING				0.0313***	0.0307***	0.0341***
				(2.98)	(2.91)	(3.28)
RESTRUCTURE				0.1173***	0.1186***	0.1132***
				(8.33)	(8.40)	(8.08)
CAPITAL_INT				-0.4056***	-0.4090***	-0.4031***
				(-8.00)	(-8.06)	(-7.99)
INTANG_INT				0.3639***	0.3779***	0.3604***
				(3.11)	(3.25)	(3.12)
MA				0.0359***	0.0351***	0.0327***
				(2.87)	(2.80)	(2.62)
INTERCEPT	9.6315***	9.6214***	9.5153***	9.7362***	9.7280***	9.6310***
	(47.30)	(47.20)	(49.82)	(47.80)	(47.56)	(49.81)
Observations	14,997	14,997	14,997	14,997	14,997	14,997
Adjusted R-squared	0.855	0.854	0.858	0.866	0.865	0.868
year FE	YES	YES	YES	YES	YES	YES
Industry dummies	YES	YES	YES	YES	YES	YES

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

Panel B. Analysis of initiation of litigation and audit fee premium in initial audit engagements

Dep. Variable = LNAUDFEE	**(1)**	**(2)**
LIT_CONT	0.3249***	0.2908***
	(9.95)	(9.31)
LIT_NEW	-0.1112	-0.0997
	(-1.40)	(-1.30)
*CHANGE*LIT_CONT*	-0.0431	-0.0621
	(-0.94)	(-1.43)
*CHANGE*LIT_NEW*	0.3179*	0.3729*
	(1.77)	(1.87)
CHANGE	-0.0464	-0.0430
	(-1.46)	(-1.40)
LNTA	0.5123***	0.5012***
	(77.06)	(76.56)
CA	0.6104***	0.4781***
	(12.23)	(9.30)
CUR_RATIO	-0.0497***	-0.0446***
	(-12.70)	(-11.82)
INV	-0.2961***	-0.2393**
	(-2.95)	(-2.44)
LEV	0.0211	0.0203
	(0.80)	(0.85)
ROA	-0.2147***	-0.1857***
	(-6.44)	(-5.75)
LOSS	0.1410***	0.1002***
	(9.30)	(7.03)
BIG4	0.2884***	0.2933***
	(10.01)	(10.82)
AUD_OPINION	0.0685***	0.0458***
	(5.75)	(4.10)
FOREIGN_OP	0.1817***	0.1731***
	(5.63)	(5.64)
BIZ_SEG	0.0443***	0.0398***
	(9.17)	(8.65)
IC_WEAKNESS		0.4038***
		(16.26)
SPECIAL		0.0400***
		(3.25)
FINANCING		0.0346***
		(3.33)
RESTRUCTURE		0.1125***
		(8.03)
CAPITAL_INT		-0.4047***
		(-8.02)
INTANG_INT		0.3606***
		(3.12)
MA		0.0323***
		(2.59)
INTERCEPT	9.5166***	9.6328***
	(49.76)	(49.77)

*CHANGE + CHANGE*LIT_NEW*	0.2715	0.3299*
	(1.54)	(1.67)
*CHANGE + CHANGE*LIT_CONT*	-0.0895***	-0.1051***
	(-3.41)	(-3.41)
Observations	14,997	14,997
Adjusted R-squared	0.858	0.868
year FE	YES	YES
Industry dummies	YES	YES

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

Table 5. The effect of auditors' experience of litigation on audit fees: Change specifications

Dep. Variable = ΔLNAUDFEE	Model A		Model B	
	(1)	(2)	(3)	(4)
ΔLIT_N	0.0003		0.0004	
	(0.89)		(1.25)	
ΔLIT_R		0.1345		0.2497
		(0.32)		(0.60)
*CHANGE*ΔLIT_N*	0.0047***		0.0045***	
	(5.88)		(5.86)	
*CHANGE*ΔLIT_R*		5.8914***		5.7727***
		(4.18)		(4.14)
CHANGE	-0.0992***	-0.1298***	-0.0967***	-0.1269***
	(-5.23)	(-6.50)	(-5.13)	(-6.41)
ΔLNTA	0.3330***	0.3345***	0.3128***	0.3145***
	(23.71)	(23.78)	(21.82)	(21.83)
ΔCA	-0.1687***	-0.1707***	-0.1276***	-0.1296***
	(-4.09)	(-4.12)	(-3.08)	(-3.11)
ΔCUR_RATIO	-0.0116***	-0.0115***	-0.0103***	-0.0102***
	(-4.60)	(-4.53)	(-4.11)	(-4.04)
ΔINV	0.3591***	0.3610***	0.3196***	0.3213***
	(3.85)	(3.84)	(3.45)	(3.45)
ΔLEV	0.0948***	0.0991***	0.0843***	0.0887***
	(4.03)	(4.13)	(3.66)	(3.78)
ΔROA	-0.0910***	-0.0910***	-0.0782***	-0.0779***
	(-4.38)	(-4.33)	(-3.84)	(-3.78)
LOSS_Y2N	-0.0149	-0.0143	-0.0136	-0.0130
	(-1.43)	(-1.36)	(-1.31)	(-1.25)
LOSS_N2Y	0.0516***	0.0520***	0.0351***	0.0354***
	(4.66)	(4.65)	(3.29)	(3.30)
AUD_OPINION_Y2N	0.0220***	0.0213**	0.0237***	0.0230***
	(2.67)	(2.58)	(2.92)	(2.83)

AUD_OPINION_N2Y	0.0282***	0.0293***	0.0170*	0.0181**
	(3.03)	(3.16)	(1.85)	(1.97)
ΔFOREIGN_OP	0.0241	0.0229	0.0257	0.0245
	(0.82)	(0.79)	(0.90)	(0.87)
ΔBIZ_SEG	0.0057	0.0055	0.0052	0.0050
	(1.53)	(1.48)	(1.42)	(1.37)
ΔCAPITAL_INT			0.0466	0.0406
			(0.98)	(0.85)
ΔINTANG_INT			0.2525*	0.2606*
			(1.84)	(1.89)
IC_WEAKNESS_Y2N			-0.0711***	-0.0760***
			(-4.03)	(-4.30)
IC_WEAKNESS_N2Y			0.2734***	0.2723***
			(13.16)	(13.11)
RESTRUCTURE_Y2N			-0.0125	-0.0117
			(-0.94)	(-0.87)
RESTRUCTURE_N2Y			0.0196	0.0184
			(1.61)	(1.50)
MA_Y2N			-0.0012	-0.0009
			(-0.14)	(-0.10)
MA_N2Y			0.0390***	0.0394***
			(4.72)	(4.75)
SPECIAL_Y2N			-0.0095	-0.0093
			(-1.14)	(-1.11)
SPECIAL_N2Y			0.0056	0.0063
			(0.72)	(0.80)
FINANCING_Y2N			-0.0090	-0.0090
			(-1.31)	(-1.31)
FINANCING_N2Y			0.0020	0.0022
			(0.27)	(0.30)
INTERCEPT	0.4899***	0.4902***	0.4657***	0.4665***
	(20.00)	(20.36)	(20.04)	(20.44)

*ΔLIT_N +CHANGE*ΔLIT_N*	0.0049***		0.0049***	
	(7.00)		(7.16)	
*ΔLIT_R +CHANGE*ΔLIT_R*		6.0259***		6.0225***
		(4.62)		(4.67)
Observations	13,300	13,300	13,300	13,300
Adjusted R-squared	0.301	0.297	0.324	0.321
year FE	YES	YES	YES	YES
Industry dummies	YES	YES	YES	YES

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

Table 6. Analysis of auditor switch type and audit fee premium in initial audit engagements

Dep. Variable = ΔLNAUDFEE	Model A			Model B		
	(1)	(2)	(3)	(4)	(5)	(6)
ΔLIT_N		0.0003			0.0004	
		(0.90)			(1.28)	
ΔLIT_R			0.1627			0.2907
			(0.39)			(0.71)
*CHANGE_B4*ΔLIT_N*		0.0035**			0.0035**	
		(2.44)			(2.51)	
*CHANGE_NB4*ΔLIT_N*		0.0053***			0.0052***	
		(5.93)			(5.98)	
*CHANGE_B4*ΔLIT_R*			6.6919**			6.7113**
			(2.55)			(2.56)
*CHANGE_NB4*ΔLIT_R*			6.1931***			6.2679***
			(3.75)			(3.81)
CHANGE_B4	-0.1454***	-0.1421***	-0.1489***	-0.1510***	-0.1482***	-0.1550***
	(-4.93)	(-4.82)	(-5.15)	(-5.19)	(-5.13)	(-5.43)
CHANGE_NB4	-0.1852***	-0.0702***	-0.1190***	-0.1792***	-0.0624**	-0.1104***
	(-8.41)	(-2.89)	(-4.38)	(-8.20)	(-2.56)	(-4.08)
ΔLNTA	0.3361***	0.3334***	0.3347***	0.3163***	0.3129***	0.3146***
	(23.68)	(23.79)	(23.80)	(21.73)	(21.88)	(21.87)
ΔCA	-0.1722***	-0.1684***	-0.1707***	-0.1314***	-0.1268***	-0.1291***
	(-4.15)	(-4.09)	(-4.12)	(-3.15)	(-3.06)	(-3.10)
ΔCUR_RATIO	-0.0115***	-0.0116***	-0.0115***	-0.0102***	-0.0102***	-0.0102***
	(-4.51)	(-4.61)	(-4.53)	(-4.02)	(-4.11)	(-4.03)
ΔINV	0.3661***	0.3584***	0.3613***	0.3269***	0.3188***	0.3215***
	(3.88)	(3.85)	(3.84)	(3.50)	(3.45)	(3.45)
ΔLEV	0.0992***	0.0940***	0.0990***	0.0891***	0.0832***	0.0885***
	(4.17)	(4.00)	(4.12)	(3.83)	(3.62)	(3.77)

ΔROA	-0.0910***	-0.0916***	-0.0913***	-0.0779***	-0.0788***	-0.0783***
	(-4.33)	(-4.42)	(-4.34)	(-3.78)	(-3.88)	(-3.80)
LOSS_Y2N	-0.0145	-0.0151	-0.0143	-0.0133	-0.0137	-0.0130
	(-1.38)	(-1.44)	(-1.37)	(-1.27)	(-1.32)	(-1.25)
LOSS_N2Y	0.0529***	0.0516***	0.0520***	0.0364***	0.0351***	0.0355***
	(4.73)	(4.66)	(4.66)	(3.39)	(3.29)	(3.30)
AUD_OPINION_Y2N	0.0205**	0.0226***	0.0215***	0.0223***	0.0244***	0.0234***
	(2.47)	(2.75)	(2.61)	(2.73)	(3.01)	(2.88)
AUD_OPINION_N2Y	0.0297***	0.0282***	0.0293***	0.0187**	0.0170*	0.0180**
	(3.21)	(3.03)	(3.16)	(2.04)	(1.85)	(1.97)
ΔFOREIGN_OP	0.0217	0.0239	0.0229	0.0229	0.0255	0.0245
	(0.74)	(0.82)	(0.78)	(0.81)	(0.90)	(0.86)
ΔBIZ_SEG	0.0054	0.0057	0.0055	0.0050	0.0053	0.0050
	(1.47)	(1.54)	(1.47)	(1.36)	(1.43)	(1.36)
ΔCAPITAL_INT				0.0377	0.0504	0.0424
				(0.79)	(1.06)	(0.89)
ΔINTANG_INT				0.2564*	0.2511*	0.2601*
				(1.85)	(1.83)	(1.88)
IC_WEAKNESS_Y2N				-0.0759***	-0.0698***	-0.0757***
				(-4.29)	(-3.95)	(-4.27)
IC_WEAKNESS_N2Y				0.2722***	0.2742***	0.2726***
				(13.10)	(13.18)	(13.12)
RESTRUCTURE_Y2N				-0.0098	-0.0126	-0.0118
				(-0.73)	(-0.95)	(-0.88)
RESTRUCTURE_N2Y				0.0179	0.0200	0.0185
				(1.46)	(1.64)	(1.51)
MA_Y2N				-0.0015	-0.0008	-0.0006
				(-0.17)	(-0.09)	(-0.07)
MA_N2Y				0.0393***	0.0398***	0.0398***
				(4.73)	(4.80)	(4.80)
SPECIAL_Y2N				-0.0093	-0.0098	-0.0094
				(-1.11)	(-1.18)	(-1.12)

SPECIAL_N2Y				0.0067	0.0052	0.0061
				(0.85)	(0.66)	(0.78)
FINANCING_Y2N				-0.0090	-0.0086	-0.0088
				(-1.30)	(-1.25)	(-1.28)
FINANCING_N2Y				0.0019	0.0019	0.0022
				(0.26)	(0.25)	(0.30)
INTERCEPT	0.4943***	0.4892***	0.4895***	0.4714***	0.4646***	0.4653***
	(20.89)	(19.86)	(20.28)	(21.08)	(19.90)	(20.34)
*CHANGE_B4*ΔLIT_N + ΔLIT_N*		0.0038***			0.0039***	
		(2.67)			(2.82)	
*CHANGE_NB4*ΔLIT_N + ΔLIT_N*		0.0055***			0.0056***	
		(6.93)			(7.14)	
*CHANGE_B4*ΔLIT_R + ΔLIT_R*			6.8546***			7.0020***
			(2.67)			(2.72)
*CHANGE_NB4*ΔLIT_R + ΔLIT_R*			6.3558***			6.5586***
			(4.07)			(4.21)
Observations	13,300	13,300	13,300	13,300	13,300	13,300
Adjusted R-squared	0.296	0.301	0.297	0.319	0.325	0.321
year FE	YES	YES	YES	YES	YES	YES
Industry dummies	YES	YES	YES	YES	YES	YES

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

Table 7. Investors' perception of audit quality – Analysis of ERC

Dep. Variable = CAR	Coefficients	(1)		(2)		(3)	
INTERCEPT	α	-0.0797**	(-2.10)	-0.0761**	(-2.00)	-0.0779**	(-2.05)
E	β_1	0.1656**	(2.24)	0.1367**	(2.02)	0.1592**	(2.27)
ΔE	β_1	0.1878**	(2.38)	0.1860**	(2.57)	0.1931***	(2.65)
	$\beta_1 + \beta_2$	0.3533***	(3.68)	0.3227***	(3.63)	0.3523***	(3.89)
*E*LIT_I*	β_3	-0.0995*	(-1.75)				
*ΔE*LIT_I*	β_4	0.0012	(0.02)				
	$\beta_3 + \beta_4$	-0.0983	(-1.32)				
*E*LIT_N*	β_3			-0.0067***	(-3.92)		
*ΔE*LIT_N*	β_4			0.0001	(0.03)		
	$\beta_3 + \beta_4$			-0.0066***	(-3.26)		
*E*LIT_R*	β_3					-6.6253***	(-4.14)
*ΔE*LIT_R*	β_4					-2.0069	(-1.17)
	$\beta_3 + \beta_4$					-8.6321***	(-4.49)
*E*PERS (β_5) / ΔE*PERS (β_6)*							
	$\beta_5 + \beta_6$	0.0493	(0.67)	0.0507	(0.69)	0.0623	(0.85)
*E*VOL (β_7) / ΔE*VOL (β_8)*							
	$\beta_7 + \beta_8$	-10.1648***	(-8.46)	-10.1316***	(-8.39)	-9.7767***	(-8.15)
*E*GROWTH (β_9) / ΔE*GROWTH (β_{10})*							
	$\beta_9 + \beta_{10}$	0.5168***	(10.53)	0.5116***	(10.40)	0.5051***	(10.28)
*E*LEV (β_{11}) / ΔE*LEV (β_{12})*							
	$\beta_{11} + \beta_{12}$	-0.3589**	(-2.31)	-0.3445**	(0.027)	-0.3345**	(-2.16)
*E*BIG4 (β_{13}) / ΔE*BIG4 (β_{14})*							
	$\beta_{13} + \beta_{14}$	-0.1157	(-1.47)	0.3125*	(1.96)	0.1106	(1.27)
*E*SIZE (β_{15}) / ΔE*SIZE (β_{16})*							
	$\beta_{15} + \beta_{16}$	0.1048***	(5.83)	0.1122***	(6.09)	0.1106***	(6.11)
*E*REG (β_{17}) / ΔE*REG (β_{18})*							
	$\beta_{17} + \beta_{18}$	0.0360	(0.46)	0.0291	(0.38)	0.0345	(0.45)

*E*BETA (β_{19}) / ΔE*BETA (β_{20})*							
	$\beta_{19} + \beta_{20}$	-0.0500	(-1.22)	-0.0462	(-1.13)	-0.0438	(-1.06)
*E*AGE (β_{21}) / ΔE*AGE (β_{22})*							
	$\beta_{21} + \beta_{22}$	0.0055**	(2.24)	0.0049**	(1.98)	0.0055**	(2.25)
LIT_I	β_{23}	0.0063	(0.90)				
LIT_N	β_{24}			0.0006***	(3.78)		
LIT_R	β_{25}					0.4004**	(2.36)
PERS	β_{26}	-0.0237***	(-4.03)	-0.0242***	(-4.11)	-0.0241***	(-4.09)
VOL	β_{27}	-1.2799***	(-13.63)	-1.2772***	(-13.61)	-1.2788***	(-13.62)
GROWTH	β_{28}	0.0428***	(18.09)	0.0429***	(18.21)	0.0430***	(18.21)
LEV	β_{29}	0.0081	(0.71)	0.0091	(0.80)	0.0077	(0.68)
BIG4	β_{30}	0.0444***	(6.74)	0.0069	(0.58)	0.0346***	(4.39)
SIZE	β_{31}	-0.0143***	(-9.74)	-0.0147***	(-9.99)	-0.0144***	(-9.79)
REG	β_{32}	0.0053	(0.35)	0.0058	(0.38)	0.0056	(0.37)
BETA	β_{33}	-0.0086***	(-2.86)	-0.0086***	(-2.86)	-0.0083***	(-2.77)
AGE	β_{34}	0.0003*	(1.73)	0.0003*	(1.92)	0.0003*	(1.70)
Observations		24889		24889		24889	
Adjusted R-squared		0.149		0.150		0.150	
year FE		YES		YES		YES	
Industry dummies		YES		YES		YES	

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

Table 8. Investors' perception of audit quality and agency costs – Subsample analysis

Panel A. Subsample analysis with asset turnover ratio

Dep. Variable = CAR		Asset Turnover Ratio				Asset Turnover Ratio			
		High		Low		High		Low	
E	β_1	0.1363	(1.13)	0.0584	(0.66)	0.1622	(1.34)	0.0745	(0.82)
ΔE	β_1	0.2561**	(2.42)	0.1212	(1.21)	0.2542**	(2.39)	0.1352	(1.34)
	$\beta_1 + \beta_2$	0.3924***	(2.70)	0.1795	(1.54)	0.4164***	(2.82)	0.2097*	(1.75)
*E*LIT_N*	β_3	-0.0021	(-0.76)	-0.0088***	(-4.03)				
*ΔE*LIT_N*	β_4	0.0013	(0.46)	-0.0017	(-0.66)				
	$\beta_3 + \beta_4$	-0.0008	(-0.25)	-0.0105***	(-3.94)				
*E*LIT_R*	β_3					-4.4046*	(-1.70)	-8.3902***	(-4.09)
*ΔE*LIT_R*	β_4					-0.4431	(-0.15)	-3.8841**	(-1.98)
	$\beta_3 + \beta_4$					-4.8477	(-1.64)	-12.2743***	(-4.69)
Control variables (as in Table 7)									
Year FE		YES		YES		YES		YES	
Industry dummies		YES		YES		YES		YES	
Observations		12,459		12,430		12,459		12,430	
Adjusted R-squared		0.170		0.137		0.171		0.137	

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm. Asset turnover ratio is defined as sales scaled by total assets. Pooled sample is bisected into above- and below-median subgroups, and regression model in equation (5) is estimated separately in the two subgroups.

Panel B. Subsample analysis with expense ratio

Dep. Variable = CAR		**Expense Ratio**				**Expense Ratio**			
		High		**Low**		**High**		**Low**	
E	β_1	0.1277	(1.24)	0.2788*	(1.90)	0.1384	(1.32)	0.3237**	(2.08)
ΔE	β_1	0.1327	(1.15)	0.1885	(1.57)	0.1399	(1.21)	0.1778	(1.44)
	$\beta_1 + \beta_2$	0.2604**	1.97	0.4674***	2.88	0.2783**	(2.08)	0.5014***	(2.98)
*E*LIT_N*	β_3	-0.0080***	(-3.26)	-0.0021	(-0.64)				
*ΔE*LIT_N*	β_4	-0.0014	(-0.52)	0.0015	(0.50)				
	$\beta_3 + \beta_4$	-0.0094***	(-3.33)	-0.0006	(-0.17)				
*E*LIT_R*	β_3					-6.3885***	(-2.70)	-5.2227*	(-1.68)
*ΔE*LIT_R*	β_4					-2.2763	(-0.87)	0.0129	(0.00)
	$\beta_3 + \beta_4$					-8.6648***	(-3.16)	-5.2098	(-1.61)
Control variables (as in Table 7)		Included		Included		Included		Included	
Year FE		YES		YES		YES		YES	
Industry dummies		YES		YES		YES		YES	
Observations		10,143		10,113		10,143		10,113	
Adjusted R-squared		0.154		0.168		0.154		0.168	

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm. Expense ratio is defined as selling, general, and administrative expenses scaled by total assets. Pooled sample is bisected into above- and below-median subgroups, and regression model in equation (5) is estimated separately in the two subgroups.

Table 9. Sensitivity analysis of audit quality, with alternative measures of litigation

Dep. Variable = AQ	**(1)**	**(2)**
LIT_A1	-0.0017**(-2.12)	
LIT_A2		-0.0022*(-1.99)
Control variables (as in column (5) of Table 3)	Included	Included
Year FE	YES	YES
Industry dummies	YES	YES
Observations	8,967	8,967
Adjusted R-squared	0.431	0.431

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

Table 10. Sensitivity analysis of litigation and audit fees

Panel A. Level Specifications with alternative measures of litigation

Dep. Variable = LNAUDFEE	**(1)**	**(2)**
LIT_A1	0.0423*** (4.84)	
LIT_A2		0.0534*** (4.52)
*CHANGE*LIT_A1*	0.0326*** (2.79)	
*CHANGE*LIT_A2*		0.0417*** (2.75)
CHANGE	-0.1422***(-5.25)	-0.1417***(-5.29)
Control variables (as in column (5) of Panel A in Table 4)	Included	Included
Year FE	YES	YES
Industry dummies	YES	YES
Observations	14,997	14,997
Adjusted R-squared	0.866	0.866

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

Panel B. Change Specifications with alternative measures of litigation

Dep. Variable = ΔLNAUDFEE	**(1)**	**(2)**
ΔLIT_A1	0.0157*** (3.23)	
ΔLIT_A2		0.0172*** (2.73)
*CHANGE*ΔLIT_A1*	0.0625*** (4.45)	
*CHANGE*ΔLIT_A2*		0.0858*** (4.81)
CHANGE	-0.1009*** (-5.38)	-0.0992*** (-5.28)
Control variables (as in column (5) of Panel A in Table 5)	Included	Included
Year FE	YES	YES
Industry dummies	YES	YES
Observations	13,300	13,300
Adjusted R-squared	0.325	0.325

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

Table 11. Sensitivity analysis of litigation and investors' perception of audit quality

Panel A. Alternative measures of CAR, 15-month cumulative abnormal returns

Dep. Variable = CAR2		**(1)**		**(2)**		**(3)**	
E	β_1	0.0979	(1.13)	0.1299	(1.49)	0.1481*	(1.69)
ΔE	β_1	0.2182**	(2.46)	0.2256**	(2.54)	0.1919**	(2.04)
	$\beta_1 + \beta_2$	0.3160***	(3.02)	0.3555***	(3.37)	0.3400***	(3.04)
*E*LIT_N*	β_3	-0.0092***	(-3.92)				
*ΔE*LIT_N*	β_4	0.0014	(0.56)				
	$\beta_3 + \beta_4$	-0.0078***	(-3.11)				
*E*LIT_R*	β_3			-7.6495***	(-3.60)		
*ΔE*LIT_R*	β_4			-2.6436	(-1.33)		
	$\beta_3 + \beta_4$			-10.2931***	(-4.45)		
*E*LIT_I*	β_3					-0.1453*	(-1.81)
*ΔE*LIT_I*	β_4					0.0663	(0.85)
	$\beta_3 + \beta_4$					-0.0789	(-0.90)
Control variables (as in column (3) of Table 7)		Included		Included		Included	
Year FE		YES		YES		YES	
Industry dummies		YES		YES		YES	
Observations		25,008		25,008		25,008	
Adjusted R-squared		0.182		0.182		0.181	

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

Panel B. Alternative measures of litigation

Dep. Variable = CAR		**(1)**		**(2)**	
E	β_1	0.1395**	(2.05)	0.1393**	(2.05)
ΔE	β_2	0.1857**	(2.57)	0.1856**	(2.57)
	$\beta_1 + \beta_2$	0.3253***	(3.65)	0.3249***	(3.65)
*E*LIT_A1*	β_3	-0.0967***	(-3.72)		
*ΔE*LIT_A1*	β_4	0.0044	(0.15)		
	$\beta_3 + \beta_4$	-0.0923***	(-2.98)		
*E*LIT_A2*	β_3			-0.1423***	(-3.90)
*ΔE*LIT_A2*	β_4			-0.0013	(-0.03)
	$\beta_3 + \beta_4$			-0.1436	(-3.31)
Control variables (as in column (3) of Table 7)		Included		Included	
Year FE		YES		YES	
Industry dummies		YES		YES	
Observations		24,889		24,889	
Adjusted R-squared		0.15		0.15	

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

Panel C. Alternative measures of earnings and earnings change

Dep. Variable = CAR		**(1)**		**(2)**		**(3)**	
E2	β_1	0.8455***	(9.59)	0.8594***	(9.63)	0.8805***	(9.24)
ΔE2	β_2	0.8019***	(5.60)	0.8134***	(5.59)	0.8731***	(5.37)
	$\beta_1 + \beta_2$	1.6474***	(10.90)	1.6728***	(10.90)	1.7536***	(10.41)
*E2*LIT_N*	β_3	-0.0011	(-0.75)				
*ΔE2*LIT_N*	β_4	-0.0042*	(-1.78)				
	$\beta_3 + \beta_4$	-0.0053**	(-2.36)				
*E2*LIT_R*	β_3			-2.2171	(-1.21)		
*ΔE2*LIT_R*	β_4			-3.6230*	(-1.17)		
	$\beta_3 + \beta_4$			-5.8401****	(-2.03)		
*E2*LIT_I*	β_3					-0.0909	(-1.30)
*ΔE2*LIT_I*	β_4					-0.1513	(-1.32)
	$\beta_3 + \beta_4$					-0.2421***	(-2.09)
Control variables (as in column (3) of Table 7)		Included		Included		Included	
Year FE		YES		YES		YES	
Industry dummies		YES		YES		YES	
Observations		24,886		24,886		24,886	
Adjusted R-squared		0.143		0.143		0.143	

See Appendix for the variable definitions. *, **, and *** indicate significance respectively at the 10%, 5%, and 1% levels in two-sided tests. Numbers in parentheses are t-statistics that are based on standard errors clustered by firm.

국문초록

감사인은 소송을 당한 이후에 감사보수와 감사품질을 어떻게 변화시키는가?

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본 연구는 소송을 당했던 감사인이 감사보수와 감사품질의 측면에서 행동을 변화시키는지의 여부를 검증하였다. 본 연구의 주요한 결과는 다음과 같다. 첫째, 감사인은 피고인으로서 소송을 당한 이후에 감사품질을 증가시키기 위해서 감사노력을 강화하였으며, 이러한 결과는 Lennox and Li (2014)의 연구결과와 일치하였다. 둘째, 감사인은 피고인으로서 소송을 당한 이후에, 기존의 감사서비스 고객 및 신규 감사서비스 고객 모두에 대해서 감사보수를 증가시켰다. 이러한 결과는 감사인이 소송 이후에 증가된 감사노력과 예상되는 법적 의무를 반영하기 위해서 감사보수 결정 메커니즘을 수정한다는 가설을 지지한다. 마지막으로, 본 연구는 감사인이 피고인으로서 소송을 당한 사실에 자본시장에서 투자자들이 인식하는 감사품질에 어떤 영향을 미치는지를 조사하였다. 그 결과, 감사인이 소송에 연루되었을 때 이익반응계수는 감소하는 것으로 드러났다. 특히, 이익반응계수의 감소는 높은 대리인 비용을 부담하는 회사들에게 집중되었으며, 이러한 결과는 대리인 비용을 감소시키는 감사인의 역할을 지지하였다.

주요어 : 소송, 감사품질, 감사보수, 이익반응계수, 대리인비용
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